

United States Department of State
Bureau of Economic and Business Affairs



United States Delegation Report

World Radiocommunication Conference 2000



Istanbul Convention and Exhibition Centre
Istanbul, Turkey
May 8 – June 2, 2000

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Submitted to the Secretary of State

by

Ambassador Gail S. Schoettler
United States Head of Delegation



United States Department of State

Washington, D.C. 20520

July 1, 2001

Dear Secretary Powell:

As the United States' ambassador to the World Radiocommunication Conference 2000 (WRC-2000) in Istanbul, Turkey, I am honored to submit to you this report on the activities of the United States delegation and the results of the Conference.

Our delegation consisted of 162 representatives, two-thirds of whom were from industry. U.S. government representatives acted as spokespeople on the myriad of issues under discussion and did an exceptional job negotiating the treaty on behalf of the United States. Our entire delegation contributed to the outstanding success of the Conference.

The World Radiocommunication Conference meets every three years to review the many changes in radiocommunications, from military to commercial uses, from terrestrial to space technologies. Given the huge investments made by our public and private sectors, the stakes in the outcomes of the Conference are very high. In addition, the field is changing very rapidly, making it increasingly important for the United States to be fully prepared well in advance of the Conference, to participate fully in the preparatory meetings held around the world, and to have its positions worked out among all delegation members before the Conference starts.

Before and during WRC-2000, we spent considerable time talking to developing countries on their own turf and again in Istanbul. Their needs are great and their resources are limited. They were very pleased to have the United States take an interest in their views and their issues. Given the one nation/one vote nature of the WRC, it is very important to continue this outreach between and during Conferences.

Our delegation and I thank the Department of State for the opportunity to represent the United States at WRC-2000.

Sincerely,

Gail S. Schoettler
Ambassador

The Honorable Colin Powell,
Secretary of State
Department of State
Washington, D.C.

REPORT OF THE UNITED STATES DELEGATION WRC-2000

Table of Contents

| | |
|---------|---|
| 1.0 | Executive Summary |
| 2.0 | Background |
| 2.1 | Introduction and Overview |
| 2.2 | General Objectives |
| 2.3 | Preparatory Efforts |
| 3.0 | The Conference |
| 3.1. | Organization, Functions and Support of the United States Delegation |
| 3.2. | Overall Conference Structure |
| 3.3. | Committee 1 - Steering |
| 3.4. | Committee 2 - Credentials |
| 3.5. | Committee 3 - Budget Control |
| 3.6. | Committee 4 - Regulatory and Associated Issues |
| 3.7. | Committee 5 - Allocations and Associated Issues |
| 3.8. | Committee 6 - Editorial |
| 3.9. | Working Group 1 of the Plenary |
| 3.10. | Working Group 2 of the Plenary |
| 3.11. | Israeli/Palestinian Issues |
| 3.12. | U.S. Reservations to the Final Acts of WRC-2000 |
| 3.13. | U.S. Delegation Reception |
| 3.14. | Global Position System Booth |
| 4.0. | Summary and Conclusion |
| Annex A | Structure of the U.S. Delegation |
| Annex B | U.S. Delegation and Participants Listing |
| Annex C | U.S. Delegation Task Assignments |
| Annex D | International Outreach Assignments |
| Annex E | Conference Agenda |
| Annex F | Structure of the Conference |
| Annex G | Conference Subcommittee Structure and U.S. Delegation Spokespersons |
| Annex H | Agenda for the 2003 World Radiocommunication Conference |
| Annex I | Agenda for the 2005/2006 World Radiocommunication Conference |

1.0 EXECUTIVE SUMMARY

1.0.1. This executive summary covers the top level objectives of the United States for World Radiocommunication Conference 2000 (WRC-2000) and gives a brief assessment of the actions taken by the United States' Delegation to the Conference.

1.0.2. From May 8 to June 2, 2000, delegates from 148 member state administrations of the International Telecommunication Union (ITU) met in Istanbul, Turkey, to consider administration proposals to revise the international radio regulations, re-plan the Broadcasting Satellite Service (BSS) and to establish the draft agendas for WRC-2003 and 2006. The newly expanded Istanbul Convention and Exhibition Centre was host to 2288 registered conference delegates. The United States Delegation, led by Ambassador Gail S. Schoettler, consisted of 162 people.

1.0.3. Nearly three and a half years were spent on technical and regulatory work and in preliminary preparatory meetings to write proposals and position papers, which were the basis of delegation negotiations. Consultations with a number of government and industry groups, bilateral and multilateral meetings were used to find mutually acceptable positions for the entire delegation.

1.0.4. The complex agenda for WRC-2000 attached in Annex E included thirty-three items covering a wide range of issues. The United States delegation's objectives included initiating and supporting actions to provide frequency allocations for new applications and to improve the use of frequency spectrum so that radio services may be provided at competitive costs. There were five major issues of concern to the United States at the Conference.

1.1 Broadcasting Satellite Service (BSS) Re-planning, Technical and Procedural Matters (Agenda Items, 1.19, 1.19bis, 1.20, and 1.21)

1.1.1. The U.S. objectives in this area were to ensure that any planning in bands used by the Fixed Satellite Service (FSS) in our region (Region 2) did not pose any interference or unacceptable restrictions to the operation of U.S. FSS systems. The second objective in this area was to ensure that changes to the procedures for implementation of BSS systems adopted in the Regions 1 and 3 plans would not be applied to Region 2 if we found these ideas to be unacceptable. The third objective for the U.S. was to accommodate as many as possible of the proposed Region 1 and 3 U.S. BSS systems during the re-planning. The fourth objective was to ensure the free flow of information and oppose any attempt to restrict the content of broadcast programming.

1.1.2. U.S. objectives in this area were largely achieved. An acceptable technical criteria used to assess compatibility between BSS systems was agreed to. The Region 1 and 3 BSS plans developed at the Conference will protect an acceptable number of U.S. FSS systems. With respect to free flow of information, new language adopted for the Radio Regulations places limits on what administrations have to do to restrict radiation over the territory of other countries. The wording of the new regulations is written in technical terms and gives no indication that any request to reduce a satellite signal or service area is related to content or business concerns.

1.2. International Mobile Telecommunications 2000 (IMT-2000) (Agenda Item 1.6)

1.2.1. The U.S. three main goals for IMT-2000, also known as Third Generation Wireless (3G), were:

1.2.1.1. Identify multiple frequency bands for IMT-2000, inclusive of the major bands being considered around the world, thereby increasing the possibility of global harmonization and international consensus. These multiple bands include the satellite as well as High Altitude Platform Station (HAPS) components of IMT-2000.

1.2.1.2. Ensure that administrations have the regulatory flexibility to make their decisions regarding implementation of these bands, or portions thereof, based on their requirements and current uses. This implies equal treatment of all bands for IMT-2000 rather than “preferred bands” or regulatory timetables for implementation.

1.2.1.3. Ensure technology neutrality for IMT-2000. IMT-2000 should be based on the evolution of current technology. Administrations should be encouraged to give freedom to their service providers to select technology given market demands, rather than having a specific technology solution be dictated by the ITU in the radio regulations.

1.2.2. The Conference adopted five separate footnotes and five resolutions, one each for the terrestrial component of IMT-2000 (806-960 MHz), the bands currently identified in S5.388, new bands above 1 GHz (1710-1885 MHz and 2500-2690 MHz), the satellite component (1525-1544 MHz, 1545-1559 MHz, 1610-1626.5 MHz, 1626.5-1645.5 MHz, 1646.5-1660.5 MHz and 2483.5-2500 MHz and 2500-2520 MHz and 2670-2690 MHz), and High Altitude Platform Stations (HAPS) operations in portions of the bands 1885-2025 MHz and 2100-2200 MHz. The language in the various new footnotes to the Radio Regulations and the accompanying Conference resolutions incorporates the above three principles. Though much work remains in the U.S. with respect to technical study and implementation, the Conference results represent a success for the United States.

1.3 Non-Geostationary Orbit and Geostationary Orbit (NGSO/GSO) Spectrum Sharing (Agenda Item 1.13)

1.3.1. The U.S. objectives for this issue were fourfold. The first objective was to support a compromise that was the result of two and a half years of work within the ITU and which was agreed at the Conference Preparatory Meeting (CPM) in November 1999. The compromise adopted power limits and other regulatory conditions under which the non-Geostationary Fixed Satellite Service (FSS) would operate so as to not cause interference to GSO FSS systems and on appropriate regulatory mechanisms to enforce such an agreement. The second primary objective for this issue was to achieve a separate coordination mechanism for Earth stations with large diameter antennas, which are used by the U.S and its allies worldwide. The third objective was to prohibit the deployment of Very Small Aperture Terminals (VSATs) in the 13.75-14.0 GHz band, used by DoD radars and space operations (including the Space Shuttle and the International Space Station) by retaining the 4.5-meter antenna diameter restriction currently in the Radio Regulations. The fourth objective was to ensure that currently operating BSS systems would be protected from the newer non-GSO FSS systems while allowing the non-GSO systems to be implemented.

1.3.2. The U.S. successfully achieved its foremost objective of maintaining the compromise reached at the CPM with regard to the technical provisions for sharing between GSO FSS and NGSO FSS systems. Moreover, resulting from U.S. proposals, this Conference adopted the necessary accompanying regulatory provisions, which include guidelines for procedures to assure NGSO FSS compliance with the operational and additional operational limits. A further compromise was reached to include in the Radio Regulations both off-axis power limits on GSO earth stations and regulatory language stating that NGSO FSS systems shall not claim protection from GSO networks. U.S. objectives were also met through the establishment of separate coordination mechanisms between earth stations with large antenna diameters and NGSO FSS systems. The U.S. proposal to maintain the 4.5 meter minimum antenna diameter restriction in the 13.75-14 GHz frequency band was met with significant opposition from foreign satellite operators planning to implement VSATs. However, the U.S. was able to prevent changes to the radio regulations regarding this matter and will participate in further studies directed by WRC-2000 to assess the issue for WRC-2003.

1.4 Radionavigation Satellite Service (RNSS) and Mobile Satellite Service (MSS) Spectrum Matters (Agenda Items 1.9 (MSS/RNSS sharing) and 1.15 (new RNSS signals, space-to-space RNSS, and removal of fixed service footnotes in RNSS bands))

1.4.1. The U.S. had three primary objectives relative to this issue at WRC-2000—all centering around the Navstar Global Positioning System. First, to protect the spectrum already in use by the GPS system from interference caused by potential new allocations to the Mobile-Satellite Service (MSS). Secondly, to attain a new global allocation centered at 1176 MHz to support a White House initiative to provide a third civil GPS signal principally for aviation called “L5.” Third, to expand the capabilities of the existing GPS signals in the 1215-1260 and 1559-1610 MHz bands by obtaining an allocation to the space-to-space direction.

1.4.2. The U.S. and many other countries made considerable progress in protecting existing GPS spectrum bands by not making an allocation to the MSS at this Conference as was proposed at WRC-97. The resolution from WRC-97 calling for studies of a possible MSS allocation in the GPS band (Resolution 220) was suppressed at WRC-2000. Further, future studies of possible new bands for MSS will exclude the GPS band. The U.S. was also successful in having the WRC allocate a new band for GPS (for the new L5 signal). The band allocated at the WRC to RNSS, 1164-1215 MHz, includes the band selected for GPS, 1164-1188 MHz, and accommodates the European Galileo system as well. The U.S. was also successful in having the Conference adopt new allocations for the space-to-space direction in both the 1215-1260 and 1559-1610 MHz bands as well as for the new allocation for GPS L5.

1.5 High Density Fixed Service (HDFS) and Fixed Satellite Service (FSS) Allocation Issues. (WRC Agenda Item 1.4)

1.5.1. U.S. objectives for this issue fell into two major categories. First was to protect military radars, space science and radio astronomy operations from HDFS and FSS in the 31.8-33.4, 55.78-56.26 and 42.5-43.5 GHz bands. Second was to obtain a global FSS allocation in the 40.5-42.5 GHz band.

1.5.2. Regulatory text was adopted to highlight the possibility of interference to and from the

radars operating in the 31.8-33.4 GHz band. Acceptable power flux density levels were established for the Space Research Service in the 31.8-33.4 GHz band and for space science passive services in the 55.78-59 GHz band. Studies to protect the Radio Astronomy in the 42.5-43.5 GHz band will continue during the next study cycle. The FSS allocation in the 40.5-42.5 GHz band will be extended to Region 1, making it a global allocation.

1.6 Detailed discussions regarding these five matters as well as all other matters considered at WRC-2000 can be found in Section 3. The Final Acts were signed on June 2, following the final gavel.

2.0 BACKGROUND

2.1. Introduction

2.1.1. The ITU convened World Radiocommunication Conference 2000 (WRC-2000) in Istanbul, Turkey from May 8 to June 2, 2000. WRC-2000 met to consider administration proposals to revise the international radio regulations, re-plan the Broadcasting Satellite Service (BSS) and to establish the draft agendas for WRC-2003 and 2006. Delegates from 148 member state administrations of the International Telecommunication Union (ITU) met at the newly expanded Istanbul Convention and Exhibition Centre. Forty-one member state administrations did not attend the conference. There were 2288 registered conference delegates making this the largest WRC in history. The United States Delegation, led by Ambassador Gail S. Schoettler, consisted of 162 people.

2.1.2. The agenda for WRC-2000 was established at WRC-97 and included thirty-three items covering a wide range of issues. The United States delegation's principle objectives included initiating and supporting actions to provide frequency allocations for new applications and to protect existing allocations and services. This shift to protection of existing services and systems is reflection of the maturity of the spectrum management process and the fact that most of the useable frequency spectrum is already being used. As a result, spectrum allocation decisions made at WRC-2000 had to consider both present and future uses of the spectrum. Without appropriate allocations or regulatory protection for existing services, particularly worldwide and regional, telecommunication providers and equipment manufacturers are reluctant to invest the time and money necessary for new telecommunications product development. Without protection of existing allocations, current telecommunication providers run the risk of having poor quality service and loss of business. Protected spectrum is also essential for government sponsored and conducted scientific research, provision of public services and national security. The issues addressed by this conference were truly of importance to both federal government and the private sector.

2.2. U.S. Objectives for the Conference

WRC-2000 was concerned with providing frequency allocations for new services, protecting existing spectrum use and re-planning the Broadcasting Satellite Service, principally for Regions 1 and 3. Major objectives of the United States for WRC-2000 taken in order of the Conference agenda were:

- 2.2.1. Finalize the requirements on satellite spurious emission limitations by removing the “design objective” and mandating limits on satellites.
- 2.2.2. Establish a regulatory mechanism to allow transmission and reception of satellite signals by Earth stations on sea-going vessels.
- 2.2.3. Allow for sufficient time to assess the effectiveness of administrative due diligence (under WRC-97 Resolution 49), and to prevent the adoption of proposals for financial due diligence.
- 2.2.4. Facilitate the reduction in the current backlog at the ITU of satellite coordination and notification requests and simplify the coordination and notification process
- 2.2.5. Protect military radars, space science and radio astronomy operations from HDFS and FSS in the 31.8-33.4, 55.78-56.26 and 42.5-43.5 GHz bands.
- 2.2.6. Obtain a global FSS allocation in the 40.5-42.5 GHz band.
- 2.2.7. Identify multiple frequency bands for IMT-2000, inclusive of the major bands being considered around the world.
- 2.2.8. Ensure that administrations have the regulatory flexibility to make their decisions regarding implementation of the IMT-2000 bands.
- 2.2.9. Ensure technology neutrality for IMT-2000.
- 2.2.10. Adopt regulatory provisions that encouraged administrations to properly use existing distress and safety calling channels and highlight the safety aspects of the aeronautical and maritime safety frequencies.
- 2.2.11. Adopt provisions that provide for increased efficiency and flexibility in the operation of the Maritime Mobile Service.
- 2.2.12. Protect the spectrum already in use by the GPS system from interference caused by potential new allocations to the Mobile-Satellite Service (MSS).
- 2.2.13. Maintain the current regulatory regime for the MSS below 1 GHz without significant expansion or modification.
- 2.1.14. Support the Conference Preparatory Meeting (CPM) compromise that adopted power limits and other regulatory conditions under which the non-Geostationary Fixed Satellite Service (FSS).
- 2.1.15. Implement a coordination mechanism for Earth stations with large diameter antennas in the 10.7-12.75, 17. -18.6, and 19.7-20.2 GHz bands.
- 2.1.16. Prohibit deployment of Very Small Aperture Terminals (VSATs) in the 13.75-14.0 GHz band.

- 2.1.17. Ensure that currently operating BSS systems would be protected from the newer non-GSO FSS systems while allowing the non-GSO systems to be implemented.
- 2.1.18. Attain a new global allocation centered at 1176 MHz to support a White House initiative to provide a third civil GPS signal principally for aviation called “L5.”
- 2.1.19. Expand the capabilities of the existing GPS signals in the 1215-1260 and 1559-1610 MHz bands by obtaining an allocation to the space-to-space direction.
- 2.1.20. Enhance the usefulness of the Earth Exploration Satellite and Radio Astronomy passive services above 71 GHz through appropriate changes to the Radio Regulations and through new allocations to these services in the 71-275 GHz range.
- 2.1.21. Extend the current ITU Region 2 primary allocation in the 18.6-18.8 GHz band to a worldwide primary allocation and adopt a worldwide satellite downlink power flux-density limit to protect these services from FSS systems
- 2.1.22. Make minimal changes to Appendix S18 to allow interim flexibility to administrations in meeting increasing requirements for maritime VHF communications.
- 2.1.23. Ensure that any changes to Appendix S18 do not result in interference on the channels used in the U.S. for railroad mobile communications networks.
- 2.1.24. Ensure that any language modifying Resolution 342 did not give any preference to any particular technology.
- 2.1.25. Ensure that any planning in bands used by the FSS in Region 2 did not pose any interference or unacceptable restrictions to the operation of U.S. FSS systems.
- 2.1.26. Ensure that changes to the procedures for implementation of BSS systems adopted in the Regions 1 and 3 plans would not be applied to Region 2 if we found these ideas to be unacceptable.
- 2.1.27. Accommodate as many as possible of the proposed Region 1 and 3 U.S. BSS systems during the re-planning.
- 2.1.28. Protect the free flow of information and oppose any attempt to restrict the content of broadcast programming.
- 2.1.29. Ensure that any regulatory or technical provisions in a revised Appendix 30/30A would continue to foster the development of the U.S. satellite industry and protect existing U.S. satellite operations.
- 2.1.30. These and other objectives were the basis for the proposals that the United States submitted to WRC-2000.

2.3. Conference Preparatory Efforts

2.3.1. The National Telecommunications and Information Administration (NTIA) and the Federal Communications Commission (FCC) developed conference proposals, in coordination with the State Department. NTIA and FCC jointly reviewed, coordinated and approved the government and industry proposals. They also published joint public notices on all proposals developed prior to formation of the accredited delegation. After a final review process, including input from public comments and other administrations and organizations, NTIA/FCC jointly forwarded the United States WRC-2000 proposals to the State Department for submission to the International Telecommunication Union.

2.3.2. In many cases, the United States did not create single country proposals. Instead, it worked with the Organization of American States (OAS) Inter-American Telecommunication Commission (CITEL) and become signatory to many of its proposals which were submitted to the ITU as joint proposals from CITEL administrations.

2.3.3. The following documents were generated after the delegation was nominally formed in December 1999.

- Proposals to the Conference - 51
- Delegation Position Papers - 106
- Delegation Information Papers - 3
- Delegation Internal Talking Points - 2
- Delegation External Talking Points – 38

These documents were made available to all delegates for review, comment and reference on the secure delegation web site which was hosted by a NASA support contractor.

2.3.1. National Telecommunications and Information Administration (NTIA) Preparations

NTIA was responsible for managing the development of U.S. Government proposals. Coordination and development of the proposals within the U.S. Government began in the Radio Conference Subcommittee (RCS) of the Interdepartment Radio Advisory Committee (IRAC), chaired by NTIA with FCC liaison. Through the RCS, representatives from the Federal agencies met to discuss, plan, and propose regulatory and allocation changes to meet present and future requirements. The RCS formed working groups to develop and pre-coordinate the initial proposals. The working groups dealt with the space science services, maritime and aeronautical issues and the mobile satellite service. IRAC/NTIA completed their review of the proposals and forwarded all U.S. Government initiated proposals to the FCC to continue the preparatory process. In turn, NTIA, IRAC, RCS and its working groups reviewed industry-based proposals from the FCC.

2.3.2 Federal Communications Commission (FCC) Preparations

Need Input

2.3.3. State Department Preparations

2.3.3.1. The International Telecommunication Advisory Committee – Radiocommunication Activity (ITAC-R) is chartered by the General Services Administration (GSA) to the U.S. Department of State as an Advisory Committee under the Federal Advisory Committee Act (FACA). The State Department-led ITAC-R was a key component of the U.S. Preparatory process for Conference itself and of the U.S. efforts to work with CITEL to submit common proposals for the region to the Conference.

2.3.3.2. State Department also participated in the “Informal Coordination Group for WRC-2000.” As was the case for WRC-97, the Informal Group sought to reconcile differences in positions and/or proposals on Conference issues. It proposed the Conference structure and identified the Conference Chairperson, Committee Chairpersons, and Working Group Chairpersons. The Informal Group was quite useful and it should be established again for WRC-2003.

2.3.3.3. The State Department also played a key in preparing Ambassador Schoettler for her role as Head of Delegation. State Department made arrangements with FCC, NASA and DoD for detailees to support Conference preparation and serve as a her technical staff. State Department also provided office space and administrative support for the Ambassador and the three detailees. State Department helped organize small delegations from the Ambassador’s technical staff and other members of the U.S. WRC-2000 team for a very aggressive outreach effort that covered over thirty-five countries and regional organizations. At the Conference Preparatory Meeting (CPM) in Geneva, State Department set up discussions with the ITU leaders. State Department also planned and funded regional meetings for the Ambassador which included Europe (CEPT), in Istanbul; the Americas (CITEL), in Argentina; Africa, in Abidjan, Ivory Coast and Asia (APT), in Tokyo. State Department was instrumental helping to arrange bilateral discussions with Canada, China, France, the European Union (EU), North Atlantic Treaty Organization (NATO), Syria, Morocco, Egypt, Canada and Japan as well. All these discussions with international partners were key to U.S. success at the conference.

3.0. THE CONFERENCE

3.1. Organization, Functions and Support of the United States Delegation

3.1.1. Ambassador Gail S. Schoettler was appointed Head of the U.S. Delegation to WRC-2000 by the President of the United States and served as the United States Representative. Three Alternate U.S. Representatives, Mr Frank Williams (State Department), Mr Karl Nebbia (NTIA) and Mr Damon Ladson (FCC) assisted her as Vice Chairpersons. Mr William Hatch (NTIA) also assisted as a Vice Chairperson for three days during the Conference. Mr Brian Ramsay (State Department) served as Executive Director of the U.S. Delegation. Mr Badri Younes (NASA), Ms. Julie Buchanan (FCC) and Lt Col Rick Reaser, USAF (DoD) were detailed by their respective agencies to serve on Ambassador Schoettler’s personal staff. A U.S. Government Spokesperson was selected for each Conference Committee, Working Group and Agenda Item. The organization of the U.S. Delegation is shown in Annex A.

3.1.2. The United States sponsored 162 individuals to the conference in official delegation capacities. In addition, a number of other U.S. citizens participated in the Conference in other capacities. A complete listing of the U.S. Delegation and other U.S. Participants at WRC-2000

is given in Annex B. Many members of the U.S. Delegation were assigned special duties, tasks and functions in support of the delegation. A listing of these U.S. Delegation Task Assignments is shown in Annex C.

3.1.3. International Outreach During the Conference

3.1.3.1. The delegation implemented a comprehensive international outreach effort for the Conference. Julie Buchanan was appointed to organize and manage the international outreach program. Each U.S. delegate was assigned one or two administrations or international organizations in order to ensure that the delegation had at least one direct link with every key entity at the Conference. Each U.S. delegate introduced themselves during the first days of the Conference to the principal delegates of their assigned country or international organization, including the delegation head, and to act as that country's liaison to the U.S. 151 administrations and international organizations at the Conference were grouped into nine regional groupings. The nine regional groupings were:

| | | |
|------------------------|-----------------------------|----------------|
| Anglophone Africa | Francophone Africa | The Americas |
| Asia/Pacific | Middle East/North Africa | The Caribbean |
| Eastern/Central Europe | International Organizations | Western Europe |

A complete listing of delegate country assignments by regional grouping is contained in Annex D.

3.1.3.2. The delegation held formal discussions with as many administrations and international organizations as practical during the course of the Conference. The Ambassador and staff held substantive meetings with 34 different countries and every region at least once. In addition to meeting with the key administrations, the developing countries, administrations that are leaders in their regions, and administrations with which the delegation was having difficulties on particular issues. Ambassador Schoettler hosted five cocktail receptions for the heads of delegation from the Americas, Africa, Asia/Pacific, Western Europe, and Eastern/Central Europe. These receptions gave the delegation an opportunity to build a rapport with the foreign leaders in a more casual and relaxed setting. During the final two weeks of the Conference, the delegation began to use the international outreach program for more substantive purposes. In the morning delegation meetings, they announced what messages needed to be sent to which countries that day. The country contacts were responsible for relaying the information to their assigned countries. In this way, we had an efficient mechanism for advancing our positions with the foreign delegations.

3.1.3.3. The international outreach program provided an effective mechanism for the U.S. Delegation to communicate its objectives and views to other governments. Conversely, foreign countries were able to communicate their views to the U.S. enabling a speedy way to overcome possible difficulties that could hinder the work of the Conference.

3.1.4. Administrative and Facilities Support at the Conference

3.14.1. The State Department made arrangements with the Hilton Hotel immediately adjacent to the Istanbul Convention and Exhibition Centre to accommodate the U.S. government delegation personnel. In addition, the State Department obtained excellent facilities, consisting of five

rooms, within the Hilton to support the delegation. The delegation office was housed in the first room and functioned as the nerve center for the delegation. The room was equipped with two high-speed reproduction machines with collators and several tables for computers and printers, two facsimile machines and mail folders for the delegates. The room also contained a Local Area Network (LAN), several phone lines and a refrigerator. State Department provided local and stateside administrative personnel to support to the delegation and provided by 24 hour access and security to this room.

3.1.4.2. In addition to the delegation office, State Department also provided a private office for the Ambassador, with a private computer connection and phone line. This room also had a large table and served as meeting room for delegation spokespersons, bilateral discussions with other administrations and for press conferences.

3.1.4.3. The third room was extremely large and had enough seating to accommodate the entire U.S. delegation and was used frequently for meetings of the entire delegation as well as smaller meetings. The fourth room was a smaller meeting room which seated approximately 35 individuals. This room was used almost continuously for internal and external meetings. The fifth room was a waiting room that connected all the rooms. It served as a meeting place and rallying point for the delegation. It had a coffee bar and was used nearly continuously. The Ambassador's suite in the Hilton was also a key facility for the Delegation at the Conference. The suite was used for receptions, substantive meetings with other administrations, and spokesperson meetings to discuss strategy and daily activities.

3.1.4.4. The State Department researched and established the policy and procedures to provide cellular phones at a reasonable cost to government spokespeople and key personnel. The Executive inventoried, distributed and managed this extremely successful initiative at the Conference.

3.1.5. Information Technology Support at the Conference. Within the Delegation Office, the State Department provided a Local Area Network (LAN), consisting of ten computer workstation, a server and two laser printers. The server was connected to two 56Kbs phone lines to provide internet support to the LAN. In addition, the LAN had its own Intranet. The Intranet portion of the LAN replicated the web site used by the delegation to prepare for the conference. This database driven website contained all the US proposals, position papers and information papers for the Conference. It also contained all the personnel information for the delegates to include what Conference issues they were working, contact information, and country assignments. During the Conference itself, the database was modified to include cell phone numbers in Istanbul and hotel information. State Department personnel maintained the LAN with assistance from members of the delegation.

3.1.6. Media Relations. NTIA's Public Affairs Office managed stateside media relations for during the Conference. NTIA organized telephone press briefings for the trade press twice a week throughout the Conference. Lt Col Rick Reaser managed media activities in Istanbul, preparing press releases and staying in touch with NTIA. At the end of the WRC, Ambassador Schoettler participated in the ITU's "wrap up" international press conference led by Secretary General Utsumi and Conference Chairman Yurdal.

3.1.7. Initial Conference Dynamics. At the outset of the first week, it appeared that the Conference of European Posts and Telecommunications (CEPT) and the Arab Group were attempting to conclude a “package deal” that pledged mutual support for each coalition’s issues. The “package” had features that the U.S. could support, but it also had numerous aspects that were counter to our interests or that needed clarification so that we could make a determination. The “package contents” were generated without the participation of Asian, American and African nations, and included European support for the Arab desire for Broadcasting Satellite Service (BSS) re-planning in return for Arab support for European positions on several issues: International Mobile Telecommunications 2000 (IMT-2000), Non-Geostationary Orbit and Geostationary Orbit (NGSO/GSO) Spectrum Sharing Provisions, Radionavigation Satellite Service (RNSS) Spectrum Allocations, High Density Fixed Service and Fixed Satellite Service Allocation Issues. The U.S. was concerned that the “package” would be agreed and adopted early in the conference to the detriment of U.S. interests. In response, the U.S. prepared two analyses of the Arab/European “package” that indicated areas where the U.S. agreed, disagreed and needed further clarification. One version was written from an Inter-American Telecommunication Commission (CITEL) perspective and the other included U.S. views that were not adopted by CITEL. The U.S. analysis was shared with Asia-Pacific Telecommunity (APT). The CITEL document was then modified to include APT views. Ultimately, the U.S. created a ground swell of support in the other regions to derail the CEPT/Arab “package” and give equal footing to all administrations so that all positions—including the U.S. position—would be duly considered during the course of the Conference.

3.2. Overall Conference Structure

3.2.1. Conference officials, committee Chairpersons and Committee vice Chairpersons were selected to provide a balanced representation from the five ITU administration regions - Africa, the Americas, Asia, Eastern Europe and Western Europe as well as the Arab Group. The Chairman of the Conference was Mr. Fatih Yurdal (Turkey) and there were six Vice Chairmen - Amb Gail. Schoettler (United States), Mr J.S. Strick (Germany), Mr L. Reyman (Russia), Mr I. Samake (Mali), Mr H. Ishihara (Japan), and Mr A. Berrada (Morocco)

3.2.2. The ITU provided staff and secretariat support for all conference activities as show below:

| | |
|---|--------------------------------------|
| Secretary of the Conference: | Mr. Y. Utsumi, ITU Secretary General |
| Executive Secretary: | Mr P. Capitaine |
| Conference Coordinator: | Ms H. Laugesen |
| Secretary of the Plenary Meeting and Committee 1: | Mr R. Smith |
| Secretary of Committee 2: | Mr D. Schuster |
| Secretary of Committee 3: | Mr G. Eidet |
| Secretary of Committee 4: | Mr P. Lundborg |
| Secretary of Committee 5: | Mr J. Lewis |
| Secretary of Committee 6: | Mr C. Langtry |
| Secretary of Working Group 1 of the Plenary: | Mr G. Mesias |
| Secretary of Working Group 2 of the Plenary: | Mr A. Nalbandian |

3.2.3. Six committees and two working groups of the Plenary, each of which was assigned specific conference agenda items, structured the conference. These committees and working groups were:

| | |
|---|---|
| Committee 1: | Steering Committee |
| Committee 2: | Credentials Committee |
| Committee 3: | Budget Control Committee |
| Committee 4: | Regulatory and Associated Issues |
| Committee 5: | Allocations and Associated Issues |
| Committee 6: | Editorial Committee |
| Working Group 1 of the Plenary (GT/Plen 1): | Agenda Items 1.19, 1.19bis, 1.20 and 1.21 |
| Working Group 2 of the Plenary (GT/Plen 2): | Agenda Items 5, 6, 7.1 and 7.2 |

3.2.4. The Conference agenda is given in Annex E. The committee structure, Chairpersons and terms of reference are given in Annex F. The subcommittee structure and U.S. Delegation spokespersons for the Conference is given in Annex G. Paragraphs 3.3 through 3.10 below describe the U.S. Objectives, Activities and Accomplishments under each Committee or Working Group of the Plenary by issue or Conference Agenda Item.

3.3. Committee 1 – Steering Committee

The Steering Committee was chaired by the Conference Chairperson, Mr Fatih Yurdal, was comprised of the conference Vice Chairpersons and the Chairpersons and Vice Chairpersons of each of the other Committees and of the Working Groups of the Plenary. Amb Gail Schoettler was the U.S. Spokesperson. Messrs Richard Beaird and Frank Williams served as Alternate Spokespersons. Mr Beaird departed the Conference after the second week.

3.3.1. U.S. Objectives

The principle role of the Steering Committee is to coordinate all matters connected with the smooth execution of work and plan the order and number of meetings taking into account the conference resources. The U.S. objective in this committee was to achieve a successful conference outcome within predetermined schedule and budgeted resources.

3.3.2. Activities and Accomplishments

Steering Committee meetings were held at least twice a week and frequently lasted several hours. Frequently, the schedule of committee meetings or working group meetings as proposed by the ITU Secretariat was adjusted and coordinated in response to the demands of the work.

3.4. Committee 2 - Credentials

The Chairman of the Credentials Committee was A.M.T. Abu of Nigeria and the Vice Chair was R. Chen of China. The Secretary for Committee 2 was Dusan Schuster of the ITU Secretariat. The U.S. Spokesperson to Committee 2 was Ms Anne Jillson.

3.4.1. U.S. Objectives

The U.S. objectives for this Committee were to assure the verification of the credentials of each of the delegations present at the conference and submit the results of the Committee 2 activities to the Plenary in a timely fashion.

3.4.2. Activities and Accomplishments

At the first meeting, Committee 2 reviewed the credentials of 66 countries, and the transfer of powers from Eritrea to Saudi Arabia; the credentials and the transfer of powers were found to be in order, in accordance with Article 31 of the Convention of the International Communication Union. In contrast to the procedure at the previous WRC where a Working Group was formed to examine credentials, at WRC-2000 all work was done by the Committee itself. The delegates participating in Committee 2 meetings represented the following countries: Australia, Brazil, Bulgaria, Cameroon, Canada, France, Japan, Indonesia, Israel, Libya, Morocco, the Netherlands, Nigeria, Poland, Russia, Spain, and the United States. At its second meeting, Committee 2 considered the credentials of delegations from an additional 63 countries which were present at the conference and the transfer of powers from the Federated States of Micronesia to the United States. Committee 2 reported to the Plenary that the delegations of 121 countries were entitled to vote and to sign the Final Acts. There were 8 countries present at the conference were not entitled to vote, but which had deposited credentials and were therefore permitted to sign the Final Acts. Delegations from 14 countries participated in the conference but did not deposit credentials and were not entitled to vote or sign the Final Acts.

3.5. Committee 3 - Budget Control

The Chairperson of the Budget Control Committee was Mr. M. Landsmann of Ukraine and the Vice Chairperson was Mr. P.G.T. Toure of Senegal. The Secretary for the Committee was Mr. A. Tazi-Riffi of the ITU. The U.S. Spokesman in Committee 3 was Mr. William H. Jahn; the alternate was Sally Nist.

3.5.1. U.S. Objectives

The U.S. objectives for Committee 3 were to ensure that the expenditures at the conference were covered by approved budgeted amounts and that sufficient funds were available to complete activities approved at the conference and that additional work in the ITU-R resulting from WRC-2000 be absorbed within the budget agreed by the ITU Council for the 2000-2001 timeframe.

3.5.2. Activities and Accomplishments

Committee 3 provided the Conference with a summary of current expenditures that showed the budget was sufficient to meet the requirements of WRC-2000. Additionally, the Report of the Budget Committee included estimates of the financial requirements for WRC-2003 preparatory activities, WRC-2000 post-conference work resulting from revised Resolutions or Recommendations, and costs associated with revising the Radio Regulations. Importantly, the U.S. goal of keeping the budget of the ITU-R within the Council's 2000-2001 budget, as

established by the 1998 Plenipotentiary Conference, was achieved and additional financial requirements for WRC-2003 preparatory activities will be absorbed within the existing ITU-R budget.

3.6. Committee 4 – Regulatory and Associated Issues

The Chairperson was Mr H. Railton (RRB). Vice-Chairpersons were Mr N. Kisrawi (Syria) and Mr L. Petzer (South Africa). The U.S. Spokesperson was Mr Doug Spalt.

3.6.1. Review of footnotes (Agenda item 1.1). Requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, in accordance with Resolution 26 (rev.WRC-97).

3.6.1.1. U.S. Objectives:

The U.S. objective with respect to the review of footnotes was to encourage the elimination of national footnotes where possible, while still maintaining national footnotes as a means of maintaining national flexibility and as a useful option for gaining agreements. The U.S. supported countries that wanted to add or correct national footnotes to reflect their national use. The U.S. opposed using this agenda item as a tool for general allocation changes (drafting footnotes that did not exist and were not covered by other WRC-2000 agenda items.)

3.6.1.2. Activities and Accomplishments:

All country name deletions were accepted without question. Consideration of country name additions was authorized by the Plenary with the understanding that such additions would be disapproved if there was any reasonable opposition. All other footnote changes proposed under this agenda item were rejected. The most significant issue for the U.S. under this agenda item, was a proposal by Brazil to create a regional allocation for the fixed service at 10-10.45 GHz. Brazil withdrew its proposal when it became clear that countries could add their names to an existing footnote.

3.6.2. Review of Appendix S3 (Agenda item 1.2). To finalize remaining issues in the review of Appendix S3 to the Radio Regulations with respect to spurious emissions for space services, taking into account Recommendation 66 (rev.WRC-97) and the decisions of WRC-97 on adoption of new values, due to take effect at a future time, of spurious emissions for space services.

3.6.2.1. U.S. Objectives:

The U.S. objective was to finalize the requirements on satellite spurious emission limitations by removing the “design objective” and mandating limits on satellites.

3.6.2.2. Activities and Accomplishments:

Appendix S3 was updated in accordance with the positions of the U.S. Space system spurious emissions were finalized and issues regarding the application of spurious emissions to radar systems were clarified. Recommendation 66 was updated to indicate that the ITU-R had concluded that out-of-band emissions should not be placed in the Radio Regulations.

3.6.3. Review of Appendix S7 (Agenda item 1.3). To consider the results of ITU-R studies in respect of Appendix S7/28 on the method for the determination of the coordination area around an earth station in frequency bands shared among space services and terrestrial radiocommunication services, and take the appropriate decisions to revise this appendix.

3.6.3.1. U.S. Objectives:

The U.S. objective was to advocate incorporation of the new ITU recommendations covering the calculation of the coordination areas around satellite Earth stations into the ITU Radio Regulations.

3.6.3.2. Activities and Accomplishments:

The U.S. proposal for incorporation by reference was not supported; however, overall U.S. objectives were met. Appendix S7 was completely updated based on the output of Task Group (TG) 1/6. Most of the text to update the Appendix followed exactly Recommendation ITU-R SM. 1488. The U.S. goal to ensure that all parts of the TG 1/6 output were included in the Radio Regulations was met. The CEPT had attempted to cut significant items. Also, the U.S. was successful in establishing an ongoing mechanism for getting future updates, with respect to system parameters and methods of calculating coordination areas, incorporated in the Radio Regulations.

3.6.4. Earth station on vessels (Agenda item 1.8). To consider regulatory and technical provisions to enable earth stations located on board vessels to operate in the fixed-satellite service (FSS) networks in the bands 3 700 - 4 200 MHz and 5 925 - 6 425 MHz, including their coordination with other services allocated in these bands.

3.6.4.1. U.S. Objectives:

The U.S. sought to establish a regulatory mechanism to allow transmission and reception of satellite signals by Earth stations on sea-going vessels (ESVs) using frequencies allocated to the FSS. This issue was debated at length in the ITU and the U.S. and ultimately resulted in a U.S. proposed coordination distance of 200 kilometers from shore for coordination between these stations and stations of the terrestrial and Fixed Service (FS).

3.6.4.2. Activities and Accomplishments:

3.6.4.2.1. The Conference approved a Resolution concerning the operation of ESVs in FSS networks in the 3700-4200 MHz and 5925-6425 MHz bands. As a result, ESVs may continue to operate under S4.4 of the Radio Regulations on a non-interference no protection basis. The Resolution calls for the ITU-R to continue to study, as a matter of urgency, the regulatory,

technical and operational constraints to be applied to ESVs. It asks the ITU-R to determine the appropriate coordination distance, to develop recommendations on methods of coordination, to study the feasibility of mitigation techniques in order to avoid detailed coordination, and to study complementary use of other FSS allocations for ESV transmissions in the extended C band and the Ku band. The Resolution also invites WRC-2003 to assess the provisions under which ESVs could operate.

3.6.4.2.2 The Resolution contains two annexes. Annex 1 contains guidelines for ESVs use and serves, for those administrations that wish to license ESVs, as a provisional regulatory framework under which they can develop bilateral or multilateral agreements. Annex 2 contains the provisional technical guidelines for ESVs such as the minimum antenna size of 2.4 meters and maximum necessary bandwidth of 2.346 MHz per vessel.

3.6.4.2.3. There are two main items in the CITEL proposal missing from the Resolution. The WRC did not agree on a footnote in the Radio Regulations giving ESVs regulatory status, and the coordination distance of 200 kilometers could not be agreed to. Instead, ESVs will continue to operate under S4.4 of the RRs and administrations will have to negotiate the coordination distance to be used under a bilateral or multilateral basis in order to coordinate use of ESVs.

3.6.4.2.4. The U.S. preserved its flexibility for continued ESV operation with Resolution because ESVs will continue to be authorized in accordance with RR S4.4. That means coordination is not required unless desired and only when there is a coastal administration willing to coordinate. Since the ITU-R studies haven't been completed, there was no agreement on the coordination distance, even on a provisional basis. The need for continued ITU-R studies on the coordination distance was part of the CITEL proposal for WRC-2000. Without an agreed distance, coordination is much more difficult since the distance can be different for various administrations. But the guidelines in Annex 1 to the Resolution provide a regulatory framework to coordinate with those administrations that wish to coordinate and can agree on a coordination distance. The experience gained in the interim until WRC-2003 can serve as an aid to the ITU-R studies and as a basis for a more specific regulatory framework that may be adopted at WRC-03. In addition, the Resolution focuses the ITU-R studies more on ESV coordination solutions than the CITEL proposal and more than currently under study.

3.6.5. Appendix S30 and S30A (Agenda item 1.20). At the request of GT/Plen 1, to consider any issue related to the application of Nos. S9.8, S9.9 and S9.17 and the corresponding parts of appendix S5 with respect to appendices S30 and S30A, with a view to possible deletion of articles 6 and 7 of appendices S30 and S30A, also taking into consideration Recommendation 35 (WRC-95).

See paragraph 3.7.3. for the U.S. Objectives, Actions and Accomplishment on this matter.

3.6.6. Incorporation by reference (Agenda item 2). To examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations in accordance with Resolution 28 (WRC-95); and decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the annex to Resolution 27 (rev.WRC-97).

3.6.6.1. U.S. Objectives:

The U.S. wanted to ensure that all references “incorporated by reference” were updated where their source references had been updated. The U.S. also sought to change the process for incorporation by reference by making information available earlier (at the CPM) with regard to references that had been updated. Last, the U.S. wanted to clarify the application of “incorporation by reference” by ensuring that incorporation by reference is only applied where there is an agenda item related to the subject of the recommendation incorporated by reference or where old recommendations already incorporated by reference have been updated.

3.6.6.2. Activities and Accomplishments:

Resolutions 27 and 28 were rewritten to clarify procedures. The modified resolutions now limit the application of IBR and also specify how the referenced material must be made available for review. All modifications to the resolutions were in accordance with U.S. objectives.

3.6.7. Review of Resolutions and Recommendations (Agenda item 4). In accordance with Resolution 95 (WRC-97), to review the Resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation.

3.6.7.1. U.S. Objectives:

The United States sought to maintain, update or suppress individual resolutions and recommendations where necessary or useful to support U.S. objectives on specific issues.

3.6.7.2. Activities and Accomplishments:

The Conference reviewed all resolutions and recommendations. Many resolutions were suppressed because the actions requested have been taken or they are no longer needed. Additionally, modifications were made to many resolutions to update them based on the current situation. Some of these modifications were the result of U.S. proposals. However, many were drafted by the working group or the working group chairman. This made the work very difficult because the resolutions had often previously been the result of difficult negotiations and the appropriate people were not necessarily available to consider changes at WRC-2000. These working group or chairman’s proposal were not available prior to the Conference making adequate review by the U.S. delegation difficult. Due to these factors, the review took longer than expected. However, active participation by U.S. delegates ensured satisfactory outcomes. Additionally, Resolution 95 was reviewed and updated to ensure that in the future a more focused approach would be taken when considering revisions to resolutions and recommendations.

3.6.8. Plenipotentiary Conference Resolutions.

3.6.8.1. Resolution 80. WRC process.

3.6.8.1.1. U.S. Objectives:

The U.S. objective was to support efforts to examine equitable access to the geostationary orbit by developing countries while protecting U.S. interests.

3.6.8.1.2. Activities and Accomplishments:

3.6.8.1.2.1. Resolution 80 (WRC-97) instructed the Radio Regulations Board to develop rules of procedure when implementing the provision in the ITU Constitution that provides that Member States shall “bear in mind” that radio frequencies and any associated orbits must be “used rationally, efficiently and economically, ... so that countries or groups of countries may have equitable access to those orbits and frequencies, taking into account the special needs of the developing countries and the geographical situation of particular countries.” The Radio Regulations Board concluded in a January 2000 Report to WRC-2000 that it would not be appropriate to develop such rules of procedure because there were no provisions in the Radio Regulations that linked the formal notification or coordination procedures with equitable access principles (set forth in the Preamble to the Radio Regulations, as well as the Constitution. Colombia, supported by several other CITEL administrations, sought revision of ITU-R Resolution 80 (WRC-97) to instruct the Radio Regulations Board to develop rules to give preferable access to the geostationary orbit and associated spectrum resources for equatorial and developing countries. Colombia drew support for its approach from the April 2000 conclusions of the Legal Subcommittee of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) which had been examining “some aspects concerning use of the geostationary orbit” for over a decade. The April 2000 Legal Subcommittee paper included compromise text acceptable to the United States that reflected the ITU treaty provisions and practices with regard to both planned and non-planned bands. The U.S. Delegation worked within CITEL and with European and Asian administrations on an approach that was responsive to developing countries’ concerns but that would not undermine essential US interests in maintaining the principle of outer space as freely available for peaceful uses to all governments and their nationals.

3.6.8.1.2.2. The Resolution ultimately adopted accurately reflected the work on this issue done by the Radio Regulations Board and by COPOUS. It instructs the Radio Advisory Group and the Radio Regulations Board to study the matter further and to consider draft amendments to the Radio Regulations linking the notification, coordination and registration therein with the “equitable access” principles. This matter will be re-visited at WRC-03.

3.6.8.2. **Resolution 85.** Evaluation of Administrative Due diligence.

3.6.8.2.1. U.S. Objectives:

No WRC-2000 action on administrative due diligence, in order to allow for sufficient time to assess the effectiveness of administrative due diligence (under WRC-97 Resolution 49), and to prevent the adoption of proposals for financial due diligence.

3.6.8.2.2. Activities and Accomplishments:

The Conference made minimal changes to Resolution 49 (WRC-97). A new Resolution was adopted reporting the Conference conclusion that it was premature to decide on the effectiveness of administrative due diligence. The Conference decided not to adopt any proposal involving financial due diligence.

3.6.8.3. **Resolution 86.** Satellite filings procedure.

3.6.8.3.1. U.S. Objectives:

The U.S. objectives were to facilitate the reduction in the current backlog at the ITU of satellite coordination and notification requests and to simplify the coordination and notification process by adoption by the ITU of greater reliance on electronic means for processing the information and shifting some of the burden for identification of administrations with which coordination is required from the ITU to the administrations.

3.6.8.3.2. Activities and Accomplishments:

The U.S. proposal for coordination self-identification initially received some support from the satellite operator-friendly countries; however, when the BR indicated that eliminating this part of its workload would not significantly impact the overall time of processing coordination requests, this support waned. Developing countries would not accept this alternative since they perceived it as removing the “safety net” offered by the BR’s unbiased examinations. The Conference did, however, adopt orbital arc separations as triggers for coordination for geostationary-satellite networks in the fixed-satellite service operating in certain specific congested bands. It also adopted mandatory electronic filing, a drop-dead date for notifying frequency assignments and a requirement for the BR to identify satellite networks with which coordination would be necessary.

3.6.8.4. **Resolution 87.** Role of the notifying administration on behalf of a named group of administrations.

3.6.8.4.1. U.S. Objectives:

The U.S. objective was to oppose any significant changes to the ITU Radio Regulations that would adversely affect our flexibility on how the U.S. Government interfaces with the ITU during notification of intergovernmental satellite systems such as Intelsat.

3.6.8.4.2. Activities and Accomplishments:

The Conference concluded that no changes to the Radio Regulations were needed and its conclusions were to be included in the Conference minutes with regard to the Conference having no intention to suggest that the notifying administration would be obliged to maintain regulatory overview of the multinational organization.

3.6.8.5. **Resolution 88.** Processing charges for satellite network filings

3.6.8.5.1. U.S. Objectives:

To include a consequence or penalty, i.e., suppression of the relevant special section published for the network, in Article S9 for failure to pay cost recovery charges. The U.S. proposal was to have this consequence and related procedures clearly laid out in the same article of the Radio Regulations (Article S9) where other consequences for failure to comply with dates and filing requirements reside.

3.6.8.5.2. Activities and Accomplishments:

The Conference decided that the regulatory consequence of non-payment of processing charges would be suppression of the special section of the weekly circular for the satellite network. That decision was placed in Article S9 and Appendices S30, S30A and S30B. The effective date of the new provision was postponed until the next Plenipotentiary Conference decides its applicability and the date that it would come into force. This was a compromise between those that thought the WRC-2000 should include the consequence of non-payment in the Regulations and others that, on principle, could not accept such a regulatory consequence for a financial default.

3.7. Committee 5 – Allocations and Associated Issues

The Chairperson was Mr C. van Diepenbeek (Netherlands). Vice-Chairpersons were Mr H.K. Al-Shankiti (Saudi Arabia) and Mr H. Fernandez Macbeath (Cuba). The U.S. Spokespersons were Messrs Karl Nebbia and Damon Ladson.

3.7.1. High Density Fixed Service (HDFS) (Agenda item 1.4).

To consider issues concerning allocations and regulatory aspects related to Resolutions 126 (WRC-97), 128 (WRC-97), 129 (WRC-97), 133 (WRC-97), 134 (WRC-97) and 726 (WRC-97).

3.7.1.1. U.S. Objectives. There were six objectives for this agenda item:

3.7.1.1.1. The first objective was to make HDFS operators aware that infrequent but significant interference will occur to HDFS systems operating in the 31.8-33.4 GHz band from military radars operating in this band that are used for defense, humanitarian, and relief operations worldwide and to seek regulatory or technical sharing mechanisms to allow these radars to continue operating without severe limitation.

3.7.1.1.2. The second objective was to establish power flux density (pfd) limits of $-120/-105$ dB(W/m²) for the Space Research Service (SRS) to protect 31.8-33.4 GHz HDFS, but still allow the SRS to complete the post launch and near-Earth phases of operation.

3.7.1.1.3. The third objective was to identify the 37-40 GHz band for HDFS with appropriate pfd limits.

3.7.1.1.4. The fourth objective was to harmonize globally, to the extent possible, the FSS allocation in the 40.5-42.5 GHz band. The U.S. also sought further studies on sharing between these proposed FSS systems and the Radio Astronomy Service (RAS) operating in the immediately adjacent band of 42.5-43.5 GHz in the ITU-R so that a future Conference could take appropriate action to protect RAS.

3.7.1.1.5. The fifth objective was to obtain a worldwide secondary allocation to MSS in the 40.5 to 41 GHz band.

3.7.1.1.6. The sixth objective of the U.S. at WRC-2000 was to set suitable power limits on the HDFS in the 55.78-56.26 GHz band to protect passive space-borne sensors.

3.7.1.2. Activities and Accomplishments

3.7.1.2.1. The potential interference between HDFS and radionavigation systems in the 31.8-33.4 GHz band was highlighted via a modification of footnote S5.547A.

3.7.1.2.2. The CITEL proposed pfd limits were adopted to protect the SRS.

3.7.1.2.3. The 37-40 GHz band was identified for HDFS. For Region 2, pfd limits were agreed to in the 37.5-43.5 GHz band that will protect HDFS operations. The mask established by Working Party 4A, with a modification to take into account Canadian concerns arising from the fact that Canadian earth stations have to use very low elevation angles due to deployment at high latitudes was adopted in the Radio Regulations. FSS satellite downlinks will normally (i.e., in clear sky) operate 12 dBW below the limits that were adopted, but will be permitted to operate up to the limit for a certain percentage of time to account for rain fade conditions. The appropriate percentage will be determined through studies by the ITU-R during the next study cycle. HDFS deployment does not require the same level of protection in other regions, so the Sub-working Group did not adopt the 12 dBW "power control" requirement to account for rain fade conditions. These regions will study the need for this protection in the next study cycle and harmonize the power levels at WRC-2003 if necessary. The 40.5-43.5 GHz band was also identified for HDFS. Although it is identified for HDFS, the pfds that were adopted between 40 GHz and 42 GHz are more favorable to ubiquitous satellite earth station deployment and will thus preclude the type of deployment existing below 40 GHz. Even though these pfds were adopted on a non-provisional basis and were the ones that came out of Joint Working party 4/9S, the Europeans were successful in inserting language into a resolution that said these pfds will be studied in the next study cycle and possibly revisited at WRC-2003.

3.7.1.2.4. The 40.5-42.5 GHz band was allocated on a global basis to FSS. The pfd levels adopted in the 40-42 GHz band were the same for all three regions and were a direct result of the levels recommended by Joint Working Party 4/9S. They are not provisional levels. However, there is language in a resolution that indicates that they can be reviewed and changed if necessary. Resolution 128 was modified to provide for a study of operational and technical measures that should be used by BSS and FSS in the 41.5 to 42.5 GHz bands to protect radio astronomy stations in the 42.5 to 43.5 GHz bands. There is no freeze on deployment, but administrations are encouraged to follow the recommendations that result from these studies. An

additional footnote was included in the table of frequency allocations based on a Russian proposal that the aggregate power flux density radiated in the 42.5-43.5 GHz band by all space stations within any non-GSO FSS or BSS system operating in the 41.5-42.5 GHz band shall not exceed -167 dB(W/m²) into any radio astronomy observatory site for more than 2 percent of the time.

3.7.1.2.5. A secondary allocation to MSS in the 40.5 to 41 GHz band was only adopted for Region 2. A MSS allocation in Regions 1 and 3 will need to be worked in a future conference.

3.7.1.2.6. The allocation to HDFS in the 55.78-56.26 GHz band was adopted at WRC-97 based upon technical studies that showed sharing between passive space-borne sensors and HDFS was feasible. In the intervening three years, the technical characteristics for both services changed and the sharing situation became more tenuous. Studies conducted by the U.S. passive sensor community indicated that a power limit on the HDFS systems was needed to protect the sensors. After many debates, WRC-2000 adopted power limits of -26 dB(W/m²) on the HDFS. This met the U.S. objectives of protecting the passive sensors, while still permitting some operation of the HDFS in the 55.78-56.26 portion of the 55.78-59 GHz band.

3.7.1.2.7. Overall U.S. objectives for this Agenda Item were met at this Conference.

3.7.2. High Altitude Platforms (Agenda item 1.5). To consider regulatory provisions and possible additional frequency allocations for services using high altitude platform stations, taking into account the results of ITU-R studies conducted in response to Resolution 122 (WRC-97)

3.7.2.1. U.S. Objectives:

Need Input

3.7.2.2. Activities and Accomplishments:

The Conference agreed to continue the freeze of ITU filings (except BSS feeder links) at 47 GHz. CITEL (including the U.S.) made this proposal. The Conference agreed to a country footnote to the International Table of Allocations at 27.5 to 28.35 GHz (HAPS-to-ground) allowing the use of HAPS by 11 countries in Region 3 and Mongolia in Region 1, on a non-interference, no claim of protection basis. The Conference agreed to a similar footnote for 31-31.3 GHz (ground-to-HAPS) for the same countries with a caveat that this link shall not cause interference to the passive services having a primary allocation in the adjacent 31.3 - 31.8 GHz bands and that countries are urged to first use the 31.0 to 31.15 GHz band. Resolution 122 was modified to include the band 18-32 GHz in studies for identification of additional spectrum for HAPS other than the 2 x 300 MHz at 47 GHz. The resolution indicates that particular emphasis should be placed on the above footnoted bands.

3.7.3. IMT-2000 (Agenda items 1.6.1 and 1.6.2). Review of spectrum and regulatory issues for advanced mobile applications in the context of IMT-2000, noting that there is an urgent need to provide more spectrum for the terrestrial component of such applications and that priority

should be given to terrestrial mobile spectrum needs, and adjustments to the table of frequency allocations as necessary. Identification of a global radio control channel to facilitate multimode terminal operation and worldwide roaming of IMT-2000.

3.7.3.1. U.S. Objectives:

The U.S. goals on IMT-2000 were to modify footnote S5.388 such that the 698-960 MHz, 1710-1885 MHz, and 2500-2690 MHz bands, or portions of these bands, could be identified as available for IMT-2000 and other advanced mobile services and which administrations could consider in implementing these new mobile services and adopt two resolutions. The two resolutions would expand upon the flexibility sought in the footnote modification by describing how administrations could make spectrum within these bands available to advanced mobile telecommunications services based on market demand and national prerogatives, and would call for studies by the ITU on sharing potential of the subject bands. A second goal was to make the necessary regulatory provisions so that High Altitude Platform Stations (HAPS) could provide IMT-2000 services.

3.7.3.2. Activities and Accomplishments:

The Conference adopted five separate footnotes and five resolutions with respect to IMT-2000. For the terrestrial component of IMT-2000, there are three separate footnotes and resolutions covering: 1) the 806-960 MHz band; 2) the bands currently identified in S5.388 (1885-2025 MHz and 2110-2200 MHz), and; 3) the new bands above 1 GHz (1710-1885 MHz and 2500-2690 MHz). The new frequency bands identified for the satellite component for IMT-2000 are presented in a single footnote and supporting resolution covering the bands: 1525-1544 MHz, 1545-1559 MHz, 1610-1626.5 MHz, 1626.5-1645.5 MHz, 1646.5-1660.5 MHz, 2483.5-2500 MHz, 2500-2520 MHz and 2670-2690 MHz. The frequency range within the modified S5.388 also includes the portion of spectrum previously identified in WARC-92 for the satellite component of IMT-2000. A single footnote and resolution were adopted for High Altitude Platform Stations (HAPS) support to IMT-2000 in portions of the bands 1885-2025 MHz and 2100-2200 MHz. The wording in the various new footnotes is different, however text in the terrestrial and HAPS footnote states that this identification does not preclude the use of these bands by any applications of the services to which they are allocated and does not establish priority in the Radio Regulations. S5.388 was modified to add a reference to the new resolution for additional spectrum above 1 GHz. While the new bands above 1 GHz are referred to as additional bands in the resolution, a significant amount of language was accepted that makes it clear that administrations can implement any of the bands in any time frame, for any service or technology, and may use any portions of the bands that they deem appropriate based on national requirements. U.S. objectives were met with respect to this Agenda Item.

3.7.4. Review of use of the HF bands by aeronautical and maritime mobile services (Agenda item 1.7). Review of the use of the HF bands by the aeronautical mobile (R) and maritime mobile services with a view to protecting operational, distress and safety communications, taking into account Resolution 346 (WRC-97).

3.7.4.1. U.S. Objectives:

There were two primary objectives in this area: protection of maritime and aeronautical safety and distress communications and the introduction of new digital technologies in the Maritime Mobile Service (MMS) in the 156-174 MHz band. The U.S. objectives in the maritime and aeronautical distress calling issues was to adopt regulatory provisions that encouraged administrations to properly use existing distress and safety calling channels and highlight the safety aspects of the aeronautical and maritime safety frequencies. The other objective in this area was to adopt provisions that provide for increased efficiency and flexibility in the operation of the MMS systems and revise Resolution 342 to place the issue of using newer digital technologies before a future competent WRC.

3.7.4.2. Activities and Accomplishments:

3.7.4.2.1. Regarding the aeronautical issues associated with this WRC Agenda Item, the plenary approved the modification to Article S15 and Resolution 207. The modification of Article S15 on interference now addresses aviation and the HF aeronautical allotment plan. The modified resolution calls for a study of the possible technical and regulatory solutions for the mitigation of interference, and more regional awareness of practices to mitigate interference. These provisions protect radio spectrum supporting Aeronautical Mobile (Route) Service (AM(R)S) communications from unauthorized use.

3.7.4.2.2. With respect to the maritime aspects of this WRC Agenda Item, the U. S. had five sub-objectives: (1) to develop a resolution that would study the possible technical and regulatory solutions for the mitigation of interference caused by unauthorized uses of the HF band, (2) to use regional awareness campaigns that might help to mitigate interference, (3) to implement certain procedures immediately that should help to reduce interference on two frequencies currently authorized for distress, safety and calling, (4) to conduct a study to determine the extent and causes of interference on those two frequencies and (5) to consider the results of those studies in WRC-2003 to determine if those two frequencies need to be allocated exclusively for distress and safety. In the main, all of these objectives were achieved. Resolution 207 was approved that achieves the first two objectives outlined above. Modifications to Appendix S52 were approved that achieves objective (3), above. A new resolution was approved that accomplishes objectives (4) and (5) above. This was part of a compromise solution. In that solution, Appendix S52 was further modified to establish the date of 31 December 2003 when the two frequencies will be for the exclusive use for distress and safety, with no routine calling permitted. In the new resolution, the results of the study will be considered at WRC 2003 and the date by which cessation of routine calling on the two specific frequencies, 31 December 2003, will be revisited and either validated, altered, or cancelled.

3.7.5. Feasibility of an MSS allocation (space to earth) in the bands 1559-1567 MHz (Agenda item 1.9). To take into account the results of ITU-R studies in evaluating the feasibility of an allocation in the space-to-earth direction to the mobile-satellite service (MSS) in a portion of the 1 559 - 1 567 MHz frequency range, in response to Resolutions 213 (WRC-97) and 220 (WRC-97).

3.7.5.1. U.S. Objectives:

The U.S. objective was to protect the spectrum already in use by the GPS system from interference caused by potential new allocations to the Mobile-Satellite Service (MSS).

3.7.5.2. Activities and Accomplishments:

3.7.5.2.1 The U.S. met with much success with respect to this Agenda Item.. Through extensive preparation efforts, particularly through the efforts of U.S. industry and international aviation organizations, there was universal support for not making an allocation to MSS in the 1559-1567 MHz portion of the Aeronautical Radionavigation Service/Radionavigation Satellite Service (ARNS/RNSS) band. In addition, the plenary suppressed Resolution 220, which called for sharing studies on this allocation. Both of these items passed without objection. In resolutions calling for further studies to find new MSS spectrum, the band 1559-1610 MHz used by both the U.S.-operated Navstar Global Positioning System (GPS) and the Russian-operated Global Navigation Satellite System (GLONASS), is explicitly excluded.

3.7.5.2.2. The only difficulty encountered on this issues was that suppression of Resolution 220 was linked by CEPT, in particular the U.K., to making allocations for MSS in the 1518-1525 and 1683-1690 MHz bands under Resolution 213. The new allocations in the 1518-1525 and 1683-1690 MHz bands were brought up by several CEPT administrations , UAE and Indonesia under Agenda Item 1.9 as an alternative to allocating MSS in the 1559-1567 MHz band. The U.S. was strongly opposed to such additional allocations even though they have already been made in Region 2 (the Americas). With the help of Russia, China and others the U.S. was successful in defeating the proposal to make allocations to MSS in the 1518-1525 and 1683-1690 MHz bands.

3.7.5.2.3. After a show of support went against the proposal to make the new MSS allocations at this Conference, an ad hoc committee drafted two new Resolutions calling for more study in the 1518-1525 and 1683-1690 MHz, as well as other bands that might be proposed for MSS. With some helpful suggestions from Russia, these Resolutions are acceptable to the U.S. Meteorological interests are concerned that the 1518-1525 MHz band would be paired with an uplink band at 1683-1690 MHz that is crucial to weather satellite operations. The 1518-1525 MHz band is used for aeronautical telemetry transmissions for flight test and is crucial for civilian and military aircraft development. Further consideration of these bands for MSS will continue to be a difficult issue for the U.S. at the next Conference and considerable attention to the study program will be required.

3.7.6. Feasibility of a generic MSS allocation in the bands 1.5-1.7 GHz (Agenda item 1.10).
To consider results of ITU-R studies carried out in accordance with Resolution 218 (WRC-97) and take appropriate action on this subject.

3.7.6.1. U.S. Objectives:

The U.S. objective was to review the footnotes for the protection for safety-of-life services from MSS interference, and if necessary, revise them to ensure the availability and integrity of safety communications within a network.

3.7.6.2. Activities and Accomplishments:

The Conference approved a modification of footnote S5.357A, which gives the spectrum requirements of specific Aeronautical Mobile Satellite (Route) Service (AMS(R)S) communications priority access and immediate availability, by pre-emption if necessary, over all other MSS communications operating within a network. The modification references a new resolution (Resolution 222) that applies to the MSS in the 1.5/1.6 GHz bands and replaces Resolution 218. Resolution 222 resolves that administrations shall: (1) in frequency coordination, ensure accommodation of AMS(R)S safety communications, (2) use the latest technical advances for priority and preemption between MSS systems if necessary and where feasible and practical, and (3) ensure that MSS operators yield non-safety capacity, as and when necessary, for AMS(R)S through coordination, and when necessary and where feasible, through prioritization and real-time preemptive access. It also requests the ITU-R to complete studies of the feasibility and practicality of prioritization and real-time preemptive access between different MSS systems, since this is yet to be determined. The suppression of Resolution 218 was also approved.

3.7.7. Review of worldwide NGSO MSS allocations below 1 GHz (Agenda item 1.11). To consider constraints on existing allocations and to consider additional allocations on a worldwide basis for the non-geostationary (non-GSO) MSS below 1 GHz, taking into account the results of ITU-R studies conducted in response to Resolutions no. 214 (rev.WRC-97) and 219 (WRC-97).

3.7.7.1. U.S. Objectives:

The U.S. goal in this area was to maintain the current regulatory regime for the MSS below 1 GHz without significant expansion or modification. The U.S. also put forward proposals to continue several on-going studies on sharing potential between the Little Low Earth Orbit (LEO) satellite systems and others services and to allow for consideration of these study results at a future conference.

3.7.7.2. Activities and Accomplishments:

3.7.7.2.1. During the Conference, the U.S. delegation was successful in promoting the U.S. position with regard to this agenda item. Specifically, the Plenary decided that study and development of Recommendations by the ITU-R on the performance requirements, sharing criteria and the technical and operational issues relating to sharing between the existing services and non-GSO MSS below 1 GHz can provide the technical basis for the consideration at WRC-2003 of additional allocations on a worldwide basis for the non-GSO MSS below 1GHz. The Conference modified the Resolution 214 accordingly.

3.7.7.2.2. The Conference also decided that consideration of the technical and regulatory constraints on non-GSO MSS allocations in the bands below 1 GHz was addressed by WRC-2000. Therefore, that aspect was proposed for deletion from Resolution 214. Resolution 214 was modified to: (1) invite continued ITU-R study of the technical and operational measures to facilitate sharing between the non-GSO MSS and existing services below 1 GHz; (2) invite WRC-03 consideration of additional allocations to the non-GSO MSS below 1 GHz; (3) remove

consideration of technical and regulatory constraints on the non-GSO MSS allocations in the bands below 1 GHz, which was addressed by WRC-2000. Under Resolution 219 the WRC-2000 was to consider the results of studies, and allocations if appropriate, in the 405-406 MHz band for non-GSO MSS below 1 GHz. Because CEPT strongly desired to suppress Resolution 219, the U.S. agreed to support its suppression with the CEPT concurrence that: 1) Resolution 214 could accommodate studies in the 401-406 MHz band, and that 2) CEPT would support consideration of allocations under Resolution 214 on the WRC-2003 agenda. Thus, it was decided to suppress Resolution 219.

3.7.8. NGSO MSS and GSO FSS feeder links in the bands 20/30 GHz (Agenda item 1.12).

To consider the progress of studies on sharing between feeder links of non-GSO MSS networks and GSO FSS networks in the bands 19.3 - 19.7 GHz and 29.1 - 29.5 GHz, taking into account Resolution 121 (rev. WRC-97).

3.7.8.1. U.S. Objectives:

Need input

3.7.8.2. Activities and Accomplishments:

Consistent with the U.S. position, the Plenary concluded that the results of the studies called for in Resolution 121 are reflected in the new ITU-R Recommendation recently adopted at the Radiocommunication Assembly. This new Recommendation includes mitigation techniques such as adaptive power control, high gain antennas, geographic isolation, site diversity and link balancing. In addition, the Recommendation addresses coordination. The referenced Recommendation was considered to cover the requirements of Resolution 121. Therefore, it was decided that the agenda item and the Resolution could be suppressed. RR S5.541A was modified accordingly. All U.S. objectives for this agenda item were attained.

3.7.9. NGSO FSS (Agenda items 1.13.1 and 1.13.2). On the basis of the results of the studies in accordance with Resolutions 130 (WRC-97), 131 (WRC-97) and 538 (WRC-97). To review and, if appropriate, revise the power limits appearing in articles S21 and S22 in relation to the sharing conditions among non-GSO FSS, GSO FSS, GSO broadcasting-satellite service (BSS), space sciences and terrestrial services, to ensure the feasibility of these power limits and that these limits do not impose undue constraints on the development of these systems and services. To consider the inclusion in other frequency bands of similar limits in articles S21 and S22, or other regulatory approaches to be applied in relation to sharing situations.

3.7.9.1. U.S. Objectives. The U.S. had four objectives for this WRC Agenda Item:

3.7.9.1.1. The first objective was to support a compromise that was the result of two and a half years of work within the ITU and which was agreed at the Conference Preparatory Meeting (CPM) last November. The compromise adopted power limits and other regulatory conditions under which the non-Geostationary FSS would operate so as to not cause interference to GSO FSS systems and on appropriate regulatory mechanisms to enforce such an agreement.

3.7.9.1.2. The second primary objective for this issue was to achieve a separate coordination mechanism for Earth stations with large diameter antennas, which are used by the defense community worldwide.

3.7.9.1.3. The third objective was to prohibit the deployment of Very Small Aperture Terminals (VSATs) in the 13.75-14.0 GHz band, used by DoD radars and space operations (including the Space Shuttle and the International Space Station) by retaining the 4.5-meter antenna diameter restriction currently in the Radio Regulations.

3.7.9.1.4. The fourth objective was to ensure that currently operating BSS systems would be protected from the newer non-GSO FSS systems while allowing the non-GSO systems to be implemented.

3.7.9.2. Activities and Accomplishments:

3.7.9.2.1. The U.S. successfully achieved its foremost objective of maintaining the compromise reached at the Conference Preparatory Meeting (CPM) with regard to the technical provisions for sharing between GSO (FSS and BSS) and NGSO FSS systems. WRC-2000 adopted regulatory provisions needed to accompany the technical agreements along the lines proposed by the U.S. A further compromise was reached to include in the Radio Regulations both off-axis power limits on GSO earth stations and language stating that NGSO FSS systems shall not claim protection from GSO networks. The various issues addressed regarding the implementation of the CPM compromise are discussed below.

3.7.9.2.1.1. The first issue dealt with GSO earth station power limits and “resolves 6” regulatory language from WRC-97’s Resolution 130. The proposals to WRC-2000 on GSO earth station off-axis limits and the “resolves 6” regulatory language (i.e., “NGSO FSS shall not claim protection from interference caused by GSO systems”) were diverse. For example, the U.S., Japan and Korea proposed to include the “resolves 6” regulatory language in the Radio Regulations and to remove any GSO earth station off-axis effective isotropic radiated power (eirp) limits from the Radio Regulations. At the other extreme, CEPT countries proposed to remove the “resolves 6” regulatory language from both Resolution 130 and the Radio Regulations and to include GSO earth station off-axis eirp limits in the Radio Regulations. CEPT argued that limits on GSO earth stations would provide a specified level of protection to NGSO satellites from GSO earth station uplink operations. The U.S. argued that no technical studies have been undertaken to demonstrate whether NGSO FSS systems would, in fact, be “protected” from GSO earth stations operating at the off-axis limits. Instead, the U.S. argued that the utility of GSO earth station off-axis limits is not to “protect” NGSO systems but to define the interference environment in which NGSO FSS systems would be required to operate. The U.S. concern with linking these two issues is that such limits on GSO earth stations would not actually protect NGSO satellites and that, in order to protect NGSO systems, these limits may need to be modified in the future further constraining GSO earth station operators.

3.7.9.2.1.1.1. In an attempt to force a compromise, the chairman proposed two options for further consideration by the working group. Option 1 was to include the “resolves 6” regulatory language in Article S5 in a footnote to the Table of Allocations and include GSO earth station

off-axis eirp limits in Article S22. There would be no explicit linkage between these two issues in the Radio Regulations. Option 2 would delete “resolves 6” regulatory language and GSO earth station limits from the Radio Regulations.

3.7.9.2.1.1.2. After internal consultations, the U.S. delegation decided that in the spirit of compromise, it could support Option 1 in spite of the regulatory implications of including such limits in the Radio Regulations. Other administrations, including France, eventually converged on Option 1. Despite its support for the Option 1 compromise, France made numerous last minute proposals that would have undermined the compromise.

3.7.9.2.1.1.3. The French objection was seemingly based on a Radio Regulation Board (RRB) interpretation in a separate frequency band, 13.75-14 GHz, where frequency sharing between the radiolocation and the FSS is also governed by “hard” limits. To make the comparison to the 10.7-12.75 GHz band, the level of protection afforded to the reception at the NGSO space station from any GSO earth station in the concerned band is that obtained by the GSO earth stations respecting the off-axis eirp density limits in Section VI of S22. Further, if an NGSO system is in compliance with the Article S22 equivalent power flux density (epfd) limits and the GSO earth stations are in compliance with the off-axis eirp density limits in Section VI, “there is no reason, nor regulatory mechanism, for an administration to complain of harmful interference caused by the other service.” In other words, by simply including GSO earth station power limits in the Radio Regulations, NGSO FSS systems can not claim protection from harmful interference caused by GSO FSS systems, and incorporating the language of “resolves 6” could be considered redundant. Nonetheless, the U.S. proposal to incorporate the *resolves 6* language into the Radio Regulations was still pursued in order to allow flexibility for future GSO technology. In the end, last minute French efforts were defeated. The RRB interpretation as well as a statement from France were included in the minutes of the meeting.

3.7.9.2.1.2. The second major issue that was resolved was the regulatory procedures for ensuring compliance with operational and additional operational limits. As called for in the CPM Report, CITEL/U.S. proposed procedures to be followed by administrations in the event of NGSO FSS non-compliance with the operational and/or additional operational limits. These procedures were proposed for inclusion in Article S15 of the Radio Regulations. CEPT objected to procedures for this specific case arguing that such action would discriminate against NGSO FSS systems. Instead, CEPT argued that the existing Article S15 “harmful” interference procedures should apply. Alternately, CEPT proposed similar procedures that would apply to all instances of “unacceptable” interference between all radiocommunication services. Committee 5 agreed that it was outside its scope to consider general modifications that would encompass “unacceptable” interference between radiocommunication services other than the specific NGSO/GSO scenario where operational/additional operational limits were adopted. Based primarily on the CITEL/U.S. and APT inputs, the conference developed procedures specific to this case. Because NGSO FSS implementation is unlikely to lead to the need for any procedures before WRC-2003, it was agreed to further study these procedures. The U.S. objective was readily achieved in that the groundwork was laid for future adoption of procedures different from those existing for harmful interference and specifically addressing the case of NGSO FSS exceedance of the operational and/or the additional operational limits.

3.7.9.2.1.3. A third issue treated at the Conference was aggregate interference from multiple NGSO FSS systems. Protection of GSO FSS and BSS systems from aggregate interference was largely resolved through the technical agreements reached at CPM. The only outstanding issue was tied to the methodology that needs to be developed to assess aggregate interference levels against the aggregate limits and the assumptions used in developing the methodology. It was agreed that further ITU-R study is needed to develop this methodology and that WRC-2000 should not prejudge the outcome of the studies. It was also agreed that this issue would not need to be addressed again at a future WRC.

3.7.9.2.1.4. The U.S. also proposed that coordination thresholds be established between GSO FSS operations in the 11.7-12.2 GHz band in Region 2 and fixed service operations in place of the existing requirement for GSO FSS operators to seek the agreement of potentially affected terrestrial administrations. The U.S. proposal was developed in response to a CITEL common proposal (not supported by the U.S.) to institute “hard” power flux density (pfd) limits on GSO FSS systems in order to avoid coordination between GSO FSS and terrestrial operations. The CITEL proposal for hard limits could adversely affect existing or already planned GSO FSS networks. The U.S. argued that coordination offers better opportunities to implement more efficient/higher order modulation techniques and smaller user terminals, while still protecting terrestrial systems. (A GSO FSS system which does not comply with “hard” limits would receive an unfavorable finding from the ITU, whereas a GSO FSS system which does not meet a “coordination threshold” would be required to effect coordination with affected terrestrial administrations). The U.S. worked closely with Canada, Mexico and other CITEL administrations in order to successfully achieve its objective of establishing “coordination thresholds.” The regulatory mechanism governing this specific case of GSO FSS coordination is contained in a Resolution.

3.7.9.2.1.5. Also related to the 11.7-12.2 GHz band (Region 2), the requirement contained in No. S5.488 that FSS systems be limited to national or sub-regional systems was removed. A similar requirement applicable to FSS systems in the 12.2-12.5 GHz band in Region 3 was also removed from No. S5.491. Although U.S. based operators seemingly benefited from this requirement in Region 2, the U.S. reluctantly agreed to the deletion because the analogous requirement in Regions 1 and 3 were a burden for U.S. based operators planning global satellite systems.

3.7.9.2.2. The U.S. delegation successfully established coordination requirements between transmitting non-GSO FSS networks and receiving GSO FSS very large earth stations in the 10.7 - 12.75, 17.8 - 18.6, and 19.7 - 20.2 GHz bands. The U.S. has operational GSO networks that transmit in the space-to-Earth direction in the band 17.8 – 21.2 GHz, which include the bands 17.8-18.6 GHz and 19.7-20.2 GHz where epfd limits apply. These networks have very sensitive receiving earth stations with very large antennas (i.e., 20 meter). Australia and the United Kingdom (U.K.) also operate GSO networks in the band 10.7-12.75 GHz with very large antennas (i.e., 18 meter diameter). The conference supported the U.S.-CITEL Proposal on this matter. CEPT and APT had similar proposals to the CITEL’s. Since there was general agreement before the Conference, the required regulatory provisions were adopted with little controversy.

3.7.9.2.3. With respect to use of the 13.75-14 GHz band by GSO FSS and NGSO FSS systems, sharing arrangements between the fixed-satellite, radiolocation, radionavigation, and space research services this band were a topic of disagreement throughout the WRC. Currently, sharing is enabled through numerous technical limitations (e.g., minimum and maximum power limits on FSS earth stations, minimum earth station antenna diameter, maximum power limit on radar) established at WRC-92 and included in the Radio Regulations. To allow sharing between NGSO FSS uplink and space research operations in the band 13.772-13.778 GHz, WRC-2000 reduced the maximum power limit applicable to NGSO FSS systems (S5.503). Additionally in footnote S5.502, the mandatory eirp limit on FSS earth stations of 68 dBW was removed (i.e., 'shall' became 'should').

3.7.9.2.3.1. Led by the United Arab Emirates (UAE), 17 Arab, several APT countries (Tonga, Laos, and Malaysia) and Spain made a proposal to remove the 4.5 meter FSS earth station minimum antenna diameter requirement. Foreign GSO FSS operators proposed to remove the 4.5 meter limitation so that they could move forward with their plans to implement Very Small Aperture Terminal (VSAT) technology. These administrations argued that the size of an earth station is a national issue for individual administrations. The U.S. opposed this effort due to serious incompatibilities between VSATs and U.S. radiolocation and space research operations. The U.S., Canada, CEPT, and APT stated that the existing minimum antenna diameter of 4.5 meters for FSS earth station should be maintained. If the 4.5 meter requirement were to be suppressed, the sharing situation would become detrimental between all these allocated services, including military radars, the NASA Shuttle and International Space Station, and FSS. The U.S. operates radiolocation systems on a worldwide, not on a national basis and is concerned about the aggregate interference from a large number of VSATs into radiolocation and as well as the space research service.

3.7.9.2.3.2. While this issue was already decided in Committee 5 (as a compromise the 4.5 meter minimum diameter remained with a requirement for future studies) and was sent to the Plenary, the opposing administrations sent a document directly to the Plenary again requesting the 4.5 meter limit be removed outright. The U.S. delegation worked through the North Atlantic Treaty Organization (NATO) members at the conference to obtain additional support. (Maintenance of the 4.5 meter minimum is a NATO WRC position.) In addition, the Department of State sent diplomatic notes to several Arab governments on the importance of retaining the 4.5 meter requirement. After tenuous discussions outside the Plenary, all parties agreed that the 4.5 meter requirement could remain if the ITU-R Study Groups 4, 7, and 8 would study the sharing requirements of all the services on an urgent basis and review the allocation at WRC-2003. In addition, rather than a country footnote or exemption as originally proposed, the Arab and other countries drafted a statement for inclusion in the meeting minutes.

3.7.9.2.4. With respect to uplink spectrum for NGSO FSS gateway operations, based on incompatibilities with the BSS allocation and operational radiolocation services, the U.S. was successful in preventing NGSO FSS uplink operations from the 17.3-17.8 GHz band in Region 2. Because certain Region 2 administrations were of the view that NGSO FSS systems need access to a comparable amount of uplink and downlink spectrum, and because the ITU-R studies on separation distances between NGSO FSS gateway uplinks and BSS receivers were not conclusive, a Resolution for further study was agreed. The further studies are limited to

frequency bands in the 10-30 GHz range outside bands allocated to NGSO FSS subject to No. S9.11A and outside the 17.3-17.8 GHz band.

3.7.9.2.4.1. Because of concerns with existing radar and planned BSS operations in the band 17.3-17.8 GHz, the U.S. and Canada pressed for footnote S5.516 to be modified so that NGSO FSS operations would not be allocated in Region 2. The CITEL administrations agreed to this concept with the understanding that future ITU-R studies should be done in an attempt to identify other Earth-to-space spectrum for gateway operations.

3.7.9.2.4.2. The U.S. was also successful in preventing NGSO FSS gateway uplink use of the 18.1-18.4 GHz band. Specifically, WRC-2000 modified the Radio Regulations limiting use of the band in the Earth-to-space direction to BSS feeder links operating within GSO networks. France strongly opposed this action arguing that it was outside the terms of reference of Agenda item 1.13. In the end, France included its view in the minutes of the meeting.

3.7.10. NGSO MSS feeder links in the band 15 GHz (Agenda item 1.14). To review the results of the studies on the feasibility of implementing non-GSO MSS feeder links in the 15.43-15.63 GHz in accordance with Resolution 123 (WRC-97).

3.7.10.1 U.S. Objectives:

U.S. objectives with regard to this Agenda Item were twofold. First, to suppress the 15.43- 15.63 GHz FSS feeder link allocation in the space-to-Earth direction, due to concern that a system that might eventually operate under this allocation could cause harmful interference to: a) U.S. passive systems operating in the 15.35 - 14.4 GHz band and, b) to Microwave Scanning Beam Landing System (MSBLS) stations operated by NASA at a number of sites, worldwide, in the 15.43- 15.7 GHz band. Provided that suppressing the downlink allocation could be achieved, a second US objective was to suppress Resolution 123 (WRC-97), that instructed the ITU-R to study the feasibility of non-GSO MSS feeder links in the 15.43- 15.63 GHz region in the space-to-Earth direction

3.7.10.2 Activities and Accomplishments:

The 15 GHz downlink allocation was suppressed. Two narrow band Russian systems, already operating in the band, and that had been shown through ITU-R studies not to cause interference to radioastronomy and MSBLS stations, were grandfathered, through footnote S5.511A, that also provides mandatory protection for radioastronomy and RNSS (MSBLS) stations. Resolution 123 (WRC-97) was suppressed. All U.S. objectives were fully achieved.

3.7.11. Radionavigation satellite (Agenda items 1.15.1, 1.15.2 and 1.15.3). To consider new allocations to the radionavigation-satellite service in the range from 1 GHz to 6 GHz required to support developments. To consider the addition of the space-to-space direction to the radionavigation-satellite service allocations in the bands 1215-1260 MHz and 1559-1610 MHz. To consider the status of allocations to services other than the radionavigation-satellite service (Nos. S5.355 and S5.359) in the band 1559-1610 MHz.

3.7.11.1. U.S. Objectives:

The U.S. had three primary objectives relative to the Agenda Item. First, to attain a new global allocation centered at 1176 MHz to support a White House initiative to provide a third civil GPS signal principally for aviation called “L5.” Second, to expand the capabilities of the existing GPS signals in the 1215-1260 and 1559-1610 MHz bands by obtaining an allocation to the space-to-space direction. Third to provide for the elimination of Fixed Service footnotes in the 1559-1610 MHz band to eliminate potential interference to GPS, while not overly restricting National Security interests in that band.

3.7.11.2. Activities and Accomplishments:

3.7.11.2.1. The outcome of WRC Agenda Item 1.15.1, new RNSS allocations, was quite favorable. There was full agreement on the 1164-1215 MHz RNSS allocation which support the GPS L5 and Galileo planned E5 signals. The U.S. position was somewhat flexible as to whether more than 24 MHz was acceptable for a new allocation in 960-1215 MHz band. The U.S. had already agreed to the CITEL common proposal for up to 48 MHz. We were able to accept an additional three MHz, up to 1215 MHz, in the drafting group, once we had reached agreement on other matters. The one departure from the U.S. proposal was the imposition of an aggregate pfd limit in the 1164-1215 MHz band. This pfd will not constrain GPS L5. However, there is concern among the aeronautical community that while the limit was set to accommodate possible narrow band Galileo signals, it may not provide sufficient protection for aeronautical systems operating in this band, particularly Distance Measuring Equipment (DME). Studies addressing the need for and value of this provisional pfd limit are recommended to be reviewed at WRC-2003.

3.7.11.2.1.1. The new RNSS allocation for the 1164-1215 MHz band allocation includes the space-to-space as well as space-to-Earth directions. A space-to-space direction was envisioned as a U.S. objective for the next WRC. The space-to-space direction allocation for GPS L5 will be helpful in adding capabilities for space-borne use earlier.

3.7.11.2.1.2 The NATO spectrum representatives met twice to discuss whether Galileo would design its E5 downlink in the 960-1215 MHz in such a way to not encumber the Joint Tactical Information Distribution System/Multi-function Information Distribution System (JTIDS/MIDS). JTIDS/MIDS is used extensively by NATO, but operates on a non-interference basis. The U.S. provided the two papers developed to address this issue to the NATO joint civil/military spectrum group at the conference. Both were well-received. A French representative indicated that France would attempt to gain formal assurances from the EU such that Galileo E5 would be designed to account for the existing RF environment in the 960-1215 MHz band. This would include JTIDS/MIDS. This matter was also discussed during the U.S./German bilateral meeting hosted by Ambassador Schoettler. A German representative indicated that since the U.S. didn’t support allocation status for U.S.-developed JTIDS/MIDS, it was difficult for Germany support future protection of JTIDS/MIDS operations from Galileo. Further discussions on this matter will be necessary within NATO.

3.7.11.2.1.3. Additional RNSS frequency bands (principally for Galileo) were also accepted. The U.S. cooperated with the Galileo interests but did not comment on the viability or desirability of the Galileo concept. Galileo enjoyed very strong support for its proposals from many countries. Alcatel was responsible for generating this support that in several cases, including CITEL, superseded the formal input proposals to the Conference. The additional bands accepted at Galileo's urging are the 1260-1300 MHz bands and 5010-5030 MHz for space-to-Earth direction and 1300-1350 MHz as well as 5000-5010 MHz in the Earth-to-space direction. There is also a space-to-space direction allocation adopted for the 1260-1300 MHz and 5010-5030 MHz bands. Systems operating in these bands must protect existing services and several new study programs are proposed for the Radio Astronomy and Aeronautical services at 5 GHz.

3.7.11.2.1.4. In order to assure protection for existing radar operations, Europe had agreed internally to attempt to establish provisional RNSS space-to-Earth pfd limits within the 1260-1300 MHz band in the Radio Regulations. Europe also wanted this pfd limit to apply to the 1215-1260 MHz band. Extending the pfd limit to this band was fueled by French and German concerns that: 1) the higher power from the new civil L2 C/A signal could cause interference to radar systems operating in the band; 2) the effectiveness of the new L2 C/A "narrow band" signal needed to be limited in some way as will be the case for the Galileo E5 narrow band signal, and 3) if Europe was forced to study pfd limits in the band they proposed for RNSS, the existing systems that operate in similar bands should be given the same burden. The NATO joint civil/military spectrum group at the conference discussed the matter of pfd limits to protect Air Defense Radars extensively. The U.S. was requested and agreed to make a presentation in September at the next NATO Frequency Management Subcommittee meeting on RNSS to radar interference as it pertains to GPS.

3.7.11.2.1.5. After difficult negotiations, and with the assistance of Russia, we were successful in avoiding the application of power flux density limits in the 1215-1260 MHz band as proposed by Europe. This band is used by GPS L2 as well as the Russian GLONASS. The U.S. (and Russia) are strongly opposed to pfd limits affecting current operational systems. With the help of Canada, final resolution for this matter was to not establish a provisional pfd limit, to study the matter further and report the results at the next Conference. But even after agreement was reached at the Working Group level, France approached the U.S. in an attempt to modify the agreement such that if a pfd were established as a result of study, it would be made retroactive. This proposal was rejected by the U.S. and France did not pursue it at the Committee level.

3.7.11.2.2. The U.S. was partially successful in getting a new primary allocation for the space-to-space direction under WRC Agenda Item 1.15.2. There was general support for making a space to space direction allocation in the 1559-1610 and 1215-1260 MHz bands to provide recognition for space use of GPS. However, Canada and UAE, operators of existing GSO MSS systems in the band adjacent to 1559-1610 MHz insisted that the new space to space allocation not be used to try to limit the MSS out-of-band emissions if there is a possibility of interference. After lengthy negotiations, the allocation was accepted with a new footnote which states, "Use of systems in the radionavigation-satellite service (space-space) operating in the bands 1215-1260 MHz and 1559-1610 MHz is not intended to provide safety service application, and shall not impose any additional constraints on other systems or services operating in accordance with the

Table of Frequency allocations.” This allocation and associated footnote will provide protection for the RNSS space-to-space service by providing a primary allocation allowing space-to-space services to register a complaint, if interference occurs. The assumption contained in this footnote assumes that RNSS can share with in band and out of band services and this result is consistent with the studies done by the U.S. and others showing that the RNSS space-space services can co-exist with other known adjacent and in band services.

3.7.11.2.2.1. While the U.S. had hoped that it would obtain the allocation with no footnotes attached, the footnote adopted is considered preferable to the original footnotes proposed at the CPM and by Canada. The impasse over the proposed footnotes was achieved as a result of a proposal from the U.S. to the Drafting Group containing the basis of the current footnote language. An additional change the U.S. proposed was to replace reference to the RNSS space-to-space allocation as not being a safety service, with the statement that RNSS in these two bands is not intended to provide safety service applications. There was debate on whether the same footnote would also be applied to the new space-to-space allocations in the 1164-1215 MHz and 5010 – 5030 MHz bands was proposed but the U.S. was successful in not having this adopted. It was however, adopted for the 1260-1300 MHz band where the sharing situation is the same as for the 1215-1260 MHz band where the footnote also applies.

3.7.11.2.3. Under WRC Agenda Item 1.15.3, general consensus was reached on removing fixed services from the 1559-1610 MHz ARNS/RNSS band. The revised footnote allocation for the fixed services calls for their transition to secondary status by 2005 and elimination from the band by 2015. Saudi Arabia, Cameroon, Jordan, Kuwait, Lebanon, Libya, Mali, Morocco, Mauritania, Syria and Tunisia, however, delayed the reduction in primary status for the fixed service until 2010.

3.7.12. Radioastronomy and passive allocations greater than 71 GHz (Agenda item 1.16).

To consider allocation of frequency bands above 71 GHz to the earth exploration-satellite (passive) and radio astronomy services, taking into account Resolution 723 (WRC-97).

3.7.12.1. U.S. Objectives:

The U.S. objective was to enhance the usefulness of the EES and RAS passive services above 71 GHz through appropriate changes to the radio regulations and through new allocations to these services in the 71-275 GHz range while taking into account the future needs of the active services throughout the frequency range.

3.7.12.2. Activities and Accomplishments:

The U.S. achieved its goals of protecting the future uses of passive remote sensing of the Earth and the future use of the millimeter-wave spectrum for radio astronomy observations while ensuring that all of the active satellite and terrestrial telecommunications services have equitable access to this important block of spectrum.

3.7.13. Earth exploration and space research and passive allocations at 18 GHz (Agenda item 1.17).

To consider possible worldwide allocation for the earth exploration-satellite

(passive) and space research (passive) services in the band 18.6 - 18.8 GHz, taking into account the results of the ITU-R studies.

3.7.13.1. U.S. Objectives:

The U.S. objective was to extend the current ITU Region 2 (the Americas) primary allocation in the 18.6-18.8 GHz band to a worldwide primary allocation and (concurrently) for the WRC to adopt a worldwide satellite downlink power flux-density limit to protect these services from FSS systems and adopt power limits on FS systems also using this band.

3.7.13.2. Activities and Accomplishments:

3.7.13.2.1. Excellent results were achieved at WRC-2000 to bring the issue of a primary worldwide allocation for EESS (passive) in the 18.6-18.8 GHz band to a successful conclusion. Protection of passive measurements in this band has been an on going objective of the space science community for the past 20 years. Obstacles that prevented a global allocation from being made for EESS (passive) in the band at WRC-97 were overcome in developing a compromise between services sharing the band. Changes to the Tables of Frequency Allocations to provide a worldwide primary allocation to the EESS (passive) along with footnotes providing necessary Fixed Service (FS) power limits and FSS pfd limits were adopted by the Conference. The outcome is in agreement with the U.S.-sponsored CITEI proposal to the Conference and will serve to enable protection of critical passive sensor measurements in the 18.6-18.8 GHz band while allowing both FS and FSS applications to be employed in the band. The pfd limit on the FSS that was adopted is in line with Federal Communications Commission (FCC) plans for use of this band within the U.S.

3.7.13.2.2. This outcome was not without significant challenges along the way. Initially, at the drafting group level, Japan proposed a modification of the FSS pfd limit footnote that would have rendered the band unusable for sensor applications. There was no support for the Japanese proposal and they were eventually forced to drop their proposal and agree to the CPM compromise as contained in all other proposals to the Conference.

3.7.13.2.3. UAE took a reservation on the item in Committee 5 following approval of the document there. When the issue was brought to Plenary for first reading, UAE again raised their objection and proposed a country footnote which stated that EESS would be secondary in their country and that the limiting footnotes that guarantee protection to the EESS (passive) systems would not be accepted within their country. Several other Arab administrations voiced their support for such a footnote. The U.S., along with other administrations expressed their opposition on the grounds that the global operation of the EESS systems would be harmfully impacted by the adoption of such a footnote. The Chair of the conference referred the issue back to Committee 5 for further discussion. In subsequent discussions, it was learned that the UAE and three other Arab administrations have existing fixed service systems operating in the band and they were concerned that EESS (passive) entry into the band would add constraints to their fixed service operations.

3.7.13.2.4. Committee 5 met to take up the issue again. Following significant efforts undertaken subsequent to the Plenary, a compromise, which had been drafted by the U.S. was proposed by the Chairman of Committee 5. The compromise would grandfather existing fixed service systems at their current power levels (i.e. they would not be subject to the new power limitations). It is believed that these systems are relatively few in number and are not operating at power levels significantly in excess of the power limits to be imposed. The Arab Group agreed to accept the grandfathering footnote thus bringing the issue to a successful conclusion.

3.7.14. Digital technologies in mobile maritime (Appendix S18) (Agenda item 1.18). To consider the use of new digital technology for the maritime mobile service in the band 156-174 MHz and consequential revision of appendix 18/S18, taking into account Resolution 342 (WRC-97).

3.7.14.1. U.S. Objectives. There were two aspects to this agenda item. The first pertains to changes in Appendix S18 and the second deals with the modification of Resolution 342.

3.7.14.1.1. The U.S. objective going into the Conference with respect to the Maritime VHF Channel Plan in Appendix S18 was two-fold: 1) make minimal changes to Appendix S18 to allow interim flexibility to administrations in meeting increasing requirements for maritime VHF communications by permitting simplex use of certain duplex channels, while avoiding any “pre-selection” of any particular digital technology for future use of these channels; and 2) ensure that any changes to Appendix S18 do not result in interference on the channels used in the U.S. for railroad mobile communications networks.

3.7.14.1.2. The U.S. objective was to ensure that any language modifying Resolution 342 did not give any preference to any particular technology. Resolution 342 deals with ITU-R studies concerning the introduction of new digital technologies for use with the VHF maritime channels set forth in Appendix S18.

3.7.14.2. Activities and Accomplishments:

3.7.14.2.1. Both objectives were achieved with respect to the Maritime VHF Channel Plan in Appendix S18. As to the first, additional duplex channels were designated as available for use in simplex mode “subject to special arrangements between interested and affected administrations,” thus allowing greater flexibility in meeting maritime communications needs in areas where channel congestion is a problem. Also, a new footnote was added to the Appendix to permit certain channels to be used for testing and development of new technologies, also “subject to special arrangements between interested and affected administrations.” The U.S. was successful in ensuring that the language of this footnote does not pre-judge or prefer any particular technology, and leaves the door open for the development and future deployment of more than one technology for the VHF maritime mobile market.

3.7.14.2.1.1. As to the second Maritime VHF objective, the railroads’ continued use of certain Appendix S18 channels in the U.S. (and Canada) is protected because the provision that allows maritime use in simplex mode does not take effect automatically. Simplex use of the duplex channels is permitted only on the condition that special bilateral or multilateral international

agreements permit such use. In this regard, both the U.S and Canada made it clear at the Conference that they will not permit maritime simplex use on the portion of the Appendix S18 duplex channels allocated for railroad use in the U.S. and Canada.

3.7.14.2.2. The U.S. objective with respect to Resolution 342 was achieved. The new text in Resolution 342 does not pre-judge or prefer any particular technology, and leaves the door open for the development and future deployment of more than one technology.

3.8. Committee 6 – Editorial Committee

The Chairperson of the Editorial Committee was Mr L. Bourgeat (France). The Vice-Chairpersons were Mr M. Johnson (United Kingdom) and Mr C. Menendez Argüelles (Spain). The U.S. Spokesperson was Mr Don Messer.

3.8.1. U.S. Objectives:

The U.S. objective for the Editorial Committee was to guarantee that the intended meaning of the original English version is carried forward to the other two languages. Special attention was paid to those agenda items where the U.S. had particular interests. The Editorial Committee controls the final wording of the Final Acts of a WRC through ensuring that the French, English and Spanish versions say the same thing. Since all drafts from the other Committees come to the Editorial Committee in English near the end of the Conference, a group of ITU-R experts have very little time to translate these into French and Spanish. The members of the Editorial Committee work on the documents to put them in final form for approval by the Plenary sessions.

3.6.2. Activities and Accomplishments:

U.S. participation in the Editorial Committee was critical to the success of the U.S. delegation. Since, the Committee Chair was French, he read from a French text, which is was translation from the original English. The translators, although they know telecommunications terms and jargon, are not people who have been involved in the development of the compromises made in the other Committees and their working groups. Therefore, U.S. spokespeople who have been to many of the meetings of the other Committees have a special role and responsibility to make certain that the content has not been altered in translation. This is not a rare event because frequently the original English, which for the controversial items is often done at the last minute, is not clear. U.S. spokespersons at the Editorial Committee meetings often were the key to clearing up technical matters. Then the process of tri-language harmonization became an easier matter with, on occasion, the English as well as the French and Spanish being properly modified. This was especially the case for the maritime mobile, BSS, and IMT-2000 documents.

3.9. Working Group 1 of the Plenary

The Chairperson was Mr R. Zeitoun (Canada). Vice-Chairpersons were Mr S. Djematene (Algeria) and Mr A. Frederich (Sweden). The U.S. Spokesperson was Ms Kim Baum.

3.9.1. Agenda item 1.19. To consider the report of the inter-conference representative group (IRG) submitted by the Director of the Radiocommunication Bureau and determine the basis for replanning by the next conference so as to afford each country an amount of spectrum that permits the economical development of a broadcasting-satellite service system.

3.9.1.1. U.S. Objectives:

The U.S. interests in this area were to ensure that any planning in bands used by the FSS in our region (Region 2) did not pose any interference or unacceptable restrictions to the operation of U.S. FSS systems. The second objective in this area was to ensure that changes to the procedures for implementation of BSS systems adopted in the Regions 1 and 3 plans would not be applied to Region 2 if we found these ideas to be unacceptable. The third objective for the U.S. was to accommodate as many as possible of the proposed Region 1 and 3 U.S. BSS systems during the re-planning.

3.9.1.2. Activities and Accomplishments:

Early in the final week of the Conference, the Radiocommunication Bureau (BR) presented the results of its development of the BSS Plan for Regions 1 and 3, including the List of subregional systems taken into account, to the GT Plen 1 meeting. The BSS Plan encompasses some 400 beams or coverage areas. The Conference expressed its extreme gratitude to the BR's BSS Team for accomplishing this major task in such a short timeframe. The Plans were more or less adopted as presented by the BR, with some editorial corrections of the documents themselves. The Plan documents include five U.S. systems in the List.

3.9.1.3 This section needs elaboration as to what happened specifically.

3.9.2. Agenda item 1.19bis. In accordance with article S14, to consider objections expressed by administrations with respect to the radio regulation board rules of procedure relating to the application of RR 2674/S23.13 in order for the bureau to modify its findings in accordance with the conclusions of the conference.

3.9.2.1. U.S. Objectives:

The United States views the free flow of information as a fundamental right of all people protected by the U.N. Universal Declaration on Human Rights of 1948. The U.S. is uncompromising in its support of this fundamental human right. Our objective on this agenda item was to protect the free flow of information and oppose any attempt to restrict the content of broadcast programming.

3.9.2.2. Activities and Accomplishments:

3.9.2.2.1. In the lead up to WRC-2000 there was a dispute in the International Telecommunication Union (ITU) Council over adding an item to the agenda of the conference on the retroactive application of the Radiocommunication Bureau (BR) Rules of Procedure (RoP) on S23.13 to stations in the Broadcasting Satellite Service (BSS) that had been previously

notified to the BR. The issue arose as a result of the adoption of Resolution 531 (WRC-95) that expanded the coordination requirements with affected administrations pursuant to S23.13. Over the objections of the United States, this agenda item was added to the conference agenda.

3.9.2.2.2. S23.13 states that “In devising the characteristics of a space station in the BSS, all technical means available shall be used to reduce, to the maximum, the radiation over the territory of other countries unless an agreement has been previously reached with such countries.” During the Conference, the issue of applying the recently adopted Rules of Procedure (RoP) pertaining to the application of S23.13 was not pursued. Instead, the conference addressed a Moroccan proposal to strengthen the application of S23.13, which would place limitations on free flow of information in the BSS service by imposing limits on a BSS satellite coverage area if an administration does not agree to accept the service. At a Sunday morning drafting group meeting the U.S. Delegation was successful in obtaining the adoption of additional regulatory texts that impose none of the proposed limitations and provide instructions to the BR that restricts its freedom in developing RoP.

3.9.2.2.3. In the end, a delicate balance of highly charged interests was reached that was an acceptable but imperfect outcome from the U.S. perspective. The additional provisions in the Radio Regulations on S23.13 do not leave the United States any better or worse off with regard to our position on free flow of information. The new language places limits on what administrations have to do to restrict radiation over the territory of other countries as required by S23.13 and draws a line in the sand on what the BR can do in drafting its Rules of Procedure regarding S23.13 issues. On the other hand, the text moves the BR Rules of Procedure to the Radio Regulations, thereby giving them treaty status. The wording of the new regulations is written in technical terms and gives no indication that any request to reduce a satellite signal or service area is related to content or business concerns.

3.9.2.2.4. In signing the Final Acts, the United States entered a Declaration stating that the ITU is not a proper forum to consider program content issues and that implementation of S23.13 is primarily a bilateral issue.

3.9.3. **Agenda item 1.20.** To consider the issues related to the application of Nos. S9.8, S9.9 and S9.17 and the corresponding parts of appendix S5 with respect to appendices S30 and S30a, with a view to possible deletion of articles 6 and 7 of appendices S30 and S30a, also taking into consideration Recommendation 35 (WRC-95).

3.9.3.1 U.S. Objectives:

The U.S. objectives in this area were to ensure that any regulatory or technical provisions in a revised Appendix 30/30A would continue to foster the development of the U.S. satellite industry and protect existing U.S. satellite operations. These objectives were not however to be achieved at the expense of the U.S. principles on the free flow of information.

3.9.3.2. Activities and Accomplishments:

The Conference approved the required modifications to the regulatory procedures of Appendices S30 and S30A (Plan modification, coordination with other services) and consequential changes to the general coordination procedures of Articles S9 and S11. One major issue that had to be resolved in Plenary was the new additions to Article 4 of Appendices S30 and S30A for Regions 1 and 3 that would allow a proposed new or modified assignment in the Regions 1 and 3 List to implement without the agreement of the administrations with affected Plan assignments (new provisions 4.1.18 – 4.1.20). Many western European administrations supported this proposal, as it provided flexibility for BSS system operators, while many developing countries opposed it. Eventually, following many drafting group meetings, the issue was resolved. In addition, the Plenary also approved the modifications to the Articles of Appendices S30 and S30A containing the Plans, and the technical Annexes. One of the final technical issues to be resolved was the sharing criteria for assessing BSS-BSS compatibility of future new or modified assignments in the List. An agreement was finally reached among Regions 1 and 3 administrations, taking into account that this criteria would be reviewed by WRC-2003 under agenda item 1.27.

3.9.3.2. It's not clear if this really met met U.S. objectives. Need a bit more elaboration

3.9.4. **Agenda item 1.21.** To consider the report from the Radiocommunication Bureau on results of the analysis in accordance with Resolution 53 (WRC-97) and take appropriate actions.

3.9.4.1. U.S. Objectives:

Need input

3.9.4.2. Activities and Accomplishments:

The Conference approved the resolutions providing essential guidance to the BR regarding its post-WRC obligations under the new Plan/List and the associated changes to technical parameters, sharing criteria and methodologies adopted at WRC-2000. These instruct the BR on how to complete the analysis regarding which systems of other services the new Regions 1 and 3 Plan assignments must coordinate with, or vice versa. In addition, they instruct the BR on which version of the procedures and technical sharing criteria should be used for re-processing already published modifications to the Plans, and for processing pending or new proposed modifications to the Plans (Region 2) or List (Regions 1 and 3).

3.10. Working Group 2 of the Plenary

The Chairperson was Mr E. George (Germany). The Vice-chairperson was Mr A. Zourmba (Cameroon). The U.S. Spokesperson was Mr Frank Williams.

3.10.1. **Agenda item 5.** To review, and take appropriate action on those items of the report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention (Geneva, 1992).

3.10.1.1. U.S. Objectives:

Need Input

3.10.1.2. Activities and Accomplishments:

Need Input

3.10.2. **Agenda item 6.** To identify those items requiring urgent actions by the radiocommunication study groups in preparation for the next World Radiocommunication Conference in accordance with Article 7 of the Convention (Geneva, 1992)

3.10.2.1. U.S. Objectives:

Need Input

3.10.2.2. Activities and Accomplishments:

Need Input

3.10.3. **Agenda item 7.1.** To consider and approve the report of the Director of the Radiocommunication Bureau on the activities of the Radiocommunication Sector since WRC-97.

3.10.3.1. U.S. Objectives:

Need Input

3.10.3.2. Activities and Accomplishments:

Need Input

3.10.4. **Agenda item 7.2.** To recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences.

3.10.4.1. U.S. Objectives:

Need Input

3.10.4.2. Activities and Accomplishments:

3.10.4.2.1. Over 40 agenda items that consider almost 50 Conference Resolutions were approved at the Plenary for WRC-2003. On the surface, this would appear to be a longer agenda compared to WRC-2000. However, many of the items are very focused and specific. A few of the items only require a report to WRC-2003 and no actual conference action. There is much concern as to cost of conducting the studies required to complete work on all these items. It is fairly certain at this point that inclusion of all these items will exceed the ITU budget. All the U.S.-proposed agenda items made it onto the final list of items proposed by WRC-2000. There

is a least one item of U.S. in paragraph 8.4 which may not carry through. The ITU Council will make the final determination as to which agenda items recommended by WRC-2000 will be on the WRC-2003 agenda and whether there might be additional items.

3.10.4.2.2. A common characteristic for several of the proposed WRC-2003 agenda items is that they are “inter-radio service” and cross multiple ITU-R Study Groups. Three new Joint Task Groups (JTGs) were formed to address these agenda items. JTG 4-7-8-9 will look at a variety of issues in the 5150-5725 MHz band under WRC-2003 Agenda Item 1.5. JTG 6-8-9 will examine spectrum and regulatory terrestrial wireless multimedia applications under WRC-2003 Agenda Item 1.21. JTG 4-7-8 will consider sharing in 13.75-14 GHz band between radiolocation, FSS and space science under WRC-2003 agenda item 1.24.

3.10.4.2.3. The Iranian delegation proposed addition of an item to the WRC-2003 agenda to consider the applicability of S23.13 to FSS systems used for the provision of Direct-to-Home (DTH) broadcasting transmissions. South Africa made a strong intervention that the already overloaded agenda for WRC-2003 heavily reflected the desires of the developed countries and if the developing countries wanted this issue on the agenda it should be included. The chairman cut off any opposing views and established a drafting group to prepare an agenda item for WRC-2003. In the drafting group the United States was successful in keeping it off both the WRC-2003 agenda and WRC-2006 draft agenda. Instead, a consensus was reached to draft a resolution calling for ITU-R studies on the current and expected future use of FSS allocations for DTH television broadcasting and to report the results of the studies to WRC-2003 for consideration, as appropriate, in the development of future conference agendas. The delegation, after consultations with Washington, felt that in order to head off a move either in Plenary or at the ITU Council to add this item to the WRC-2003 agenda anyway, that some reference to a future conference agenda had to be included in resolves portion of the resolution. The proposed resolution, even though contrary to the instructions of the drafting group, was approved by the Plenary with minimum discussion.

3.11. Israeli/Palestinian Issues

3.11.1. The Israeli and Palestinian Observer delegations worked on two issues throughout the conference. In the Broadcasting Satellite Service (BSS) replanning, the channels reserved for the future use of Palestine will be expanded from five to ten as for all countries in ITU Region 1. Israel allowed the expansion to go through with no comment as recommended by replanning process. There was an issue of designation of Palestine in the BSS Plan. At WRC-97 when the channels were first reserved for the future use of Palestine, a designator of “YYY” was used. This time the International Telecommunication Union (ITU) wanted to use the “PSE” designator created by the International Standards Organization for the Occupied Territories. After an explanation by the ITU legal advisor, the Israeli delegation was prepared to allow the proposed changes to go forward if the radio frequency assignment registration issues could be resolved.

3.11.2. The second issue relates to implementation of Resolution 99 from the 1998 ITU Plenipotentiary Conference in Minneapolis. At issue was the transfer of radio frequency assignments in the Master International Frequency Register from Israel to the Palestinians for the territory under Palestinian control. For much of the conference, the Israeli and Palestinian

Observer delegations attempted to agree on the wording of a letter to be submitted by the Israeli delegation to the Director of the ITU Radiocommunication Bureau (BR) on the terms of reference for a joint technical committee. This joint committee would begin meeting within one month after the closing of the conference to work out procedures for the orderly notification of the relevant frequency assignments.

3.11.3. During the Conference, there were numerous letters drafted by the parties but they were unable to agree on wording that satisfies the Israel and Palestinian concerns which are deeply embedded in their bilateral relationship. The Turkish Chairman of the Conference, Fatih Mehmet Yurdal, after some initial prodding from the U.S., met numerous times with the two parties and worked hard to find a solution.

3.11.4. At the end of the third week of the conference there was still no agreement, approximately 20 Mid East and North African countries submitted a resolution to the conference urging that Israel apply resolves 1 of Resolution 99. From the beginning of the conference, there was disagreement within the Arab countries on the wording of the resolution. In order to reach a consensus, the final wording of the resolution was moderated to the point it was really quite mild and inoffensive. Still, it was viewed by Israel as being yet another political statement by an international conference. Israel did not want it to be adopted. In response to the resolution, the Israeli delegation submitted a paper as to why the resolution should be withdrawn and why it was a politicization of the conference. Since Israel was ready to meet to work out procedures for the transfer of the frequency assignments, it clearly had a much stronger, more reasonable case than presented in its paper.

3.11.5. Conference Chairman Yurdal of Turkey continued meeting with the parties and the U.S. delegation to find a solution on the wording of the letter. On Tuesday of the fourth week, the Chairman asked the two representatives from the European Union (EU), Malcolm Johnson (U.K.) and Jose Toscano (Portugal/EU Chair), to join him and the parties in negotiating acceptable wording for the letter. After several long hours of negotiations, an agreement was reached on the wording of the letter, avoiding an all night Plenary meeting on consideration of the Arab resolution. The next day, Israel delivered a letter to Palestinian Deputy Minister Al Laham requesting him to establish a date for the first meeting. With an agreement on the letter establishing the terms of reference of the joint technical committee, the Israeli delegation allowed the five additional channels for Palestine in the revised BSS Plan to be adopted without comment.

3.12. U.S. Reservations to the Final Acts of WRC-2000

The United States entered a Declaration in the Final Acts expressing its concern about consideration of program content issues by the ITU as reported earlier in this report under Agenda item 1.19bis. Consistent with U.S. practices at ITU treaty-making conferences, the delegation reserved the right of the United States to make additional specific reservations at the time of deposit of the U.S. instrument of acceptance of the revisions of the Radio Regulations. In addition, the delegation stated that the United States could only be considered bound by instruments adopted by an ITU Conference once it officially notifies the ITU of its consent to be bound, and it reiterated and incorporated by reference all declarations and reservations made by

the U.S. at prior radiocommunication conferences. In response to a statement by Cuba, the delegation recalled the rights of the United States to broadcast to Cuba on appropriate frequencies free of jamming or other wrongful interference and its right to meet its radiocommunication requirements at its naval base in Guantanamo, Cuba.

3.13. U.S. Delegation Reception

The U.S. Delegation held a reception for all conference participants on Friday, May 12 at the 18th century Sepetciler Mansion located where the Sea of Marmara meets the Bosphorus. The event was planned for 1150 people and over 1700 people attended. The reception was funded by private sector contributions solicited and managed by designated private sector representatives pursuant to State Department legal guidelines. The funds were managed by designated private sector representatives and only expended upon approval by the State Department's WRC-2000 Executive Director in conjunction with the Ambassador. The U.S. one of only two Administrations to host such a reception. This event was one of the first in a series of U.S. outreach activities designed to establish a sense of good will toward the delegation. The reception was a resounding success and reflected quite favorably on the United States.

3.14. Global Positioning System Booth

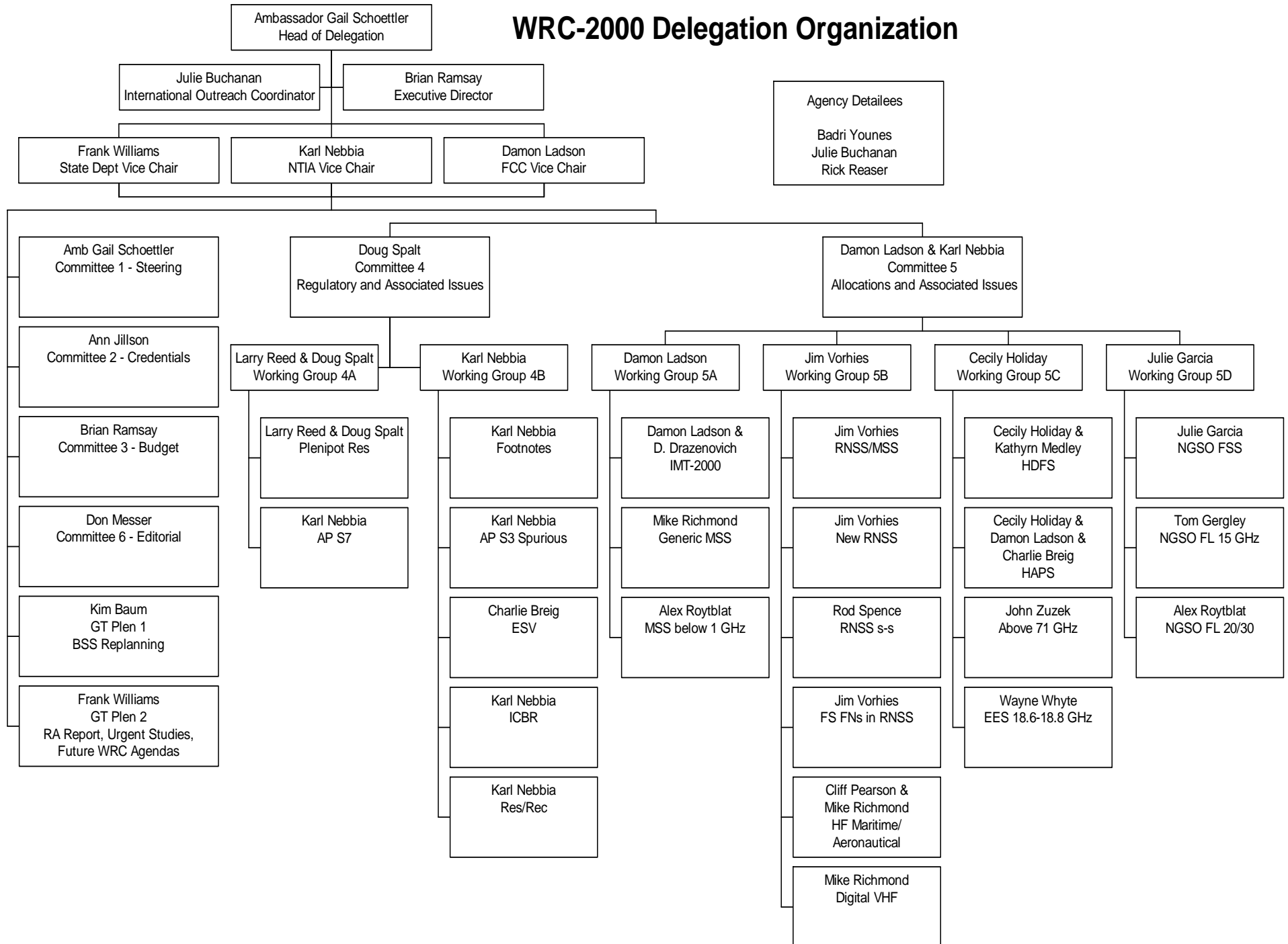
In support of U.S. objectives regarding Global Position System spectrum, the White House Office of Science and Technology, Department of Defense, Department of Transportation, National Aeronautics and Space Administration and private sector interests to include the Air Transport Association developed and funded a GPS booth for the Exhibition Hall at the Conference. Contact was made with over 350 people from 82 countries. Discussions were held on average with two people from each country. Many of these people came back one or two times to continue discussions or ask additional questions. Additionally, booth personnel briefed the Congressional Economic Leadership Institute and a delegation of Turkish Air Traffic Controllers. Booth personnel conducted both televised interviews and print press interviews. The televised interviews were with local Istanbul, Turkey stations and the Turkish national news station. Print press interviews were held with the local Istanbul media. A local article was published on May 11 regarding the booth. Space News also published an article during the WRC regarding booth activities. The GPS booth was extremely successful and positively contributed to U.S. WRC-2000 allocation and regulatory objectives with respect to GPS.

4.0. Summary and Conclusion

In spite of a long, complicated agenda for the Conference and an extremely large delegation, the United States developed a cohesive team approach with strong and effective processes coupled with a comprehensive outreach agenda. As a result, the U.S. Delegation to WRC-2000 achieved all major objectives set forth for the Conference. The WRC-2000 Final Acts were signed by Ambassador Schoettler on behalf of the United States, following the final gavel on June 2.

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Designation on WRC-2000 List of Participants

1. Head of Delegation
2. Deputy Head
3. Delegate
4. Advisor
5. Radio Regulations Board
6. Not Listed

Other Official United States Participants

Recognized Operating Agencies

Jose Escudero, Ellipso Corporation
Gerald Helman, Ellipso Corporation
Denise Siebert, Ellipso Corporation
Christopher White, Ellipso Corporation
Christopher Kelshaw, Loral Skynet
Larry Atlas, Loral Space and Comm Ltd.
John Stern, Loral Space and Comm Ltd.
Sami Al-Basheer, Teledesic Corporation
Sallye Clark, Teledesic Corporation
Katherine Cousins, Teledesic Corporation
Russell Daggatt, Teledesic Corporation
Blaise Judja-Sato, Teledesic Corporation
Steven Meyer, Teledesic Corporation
Marcella Ost, Teledesic Corporation
Matthew Shears, Teledesic Corporation
Sheryl Wilcox, Teledesic Corporation
Lawrence Williams, Teledesic Corporation
Sheldon Bentley, The Boeing Company
Johannes Grande, The Boeing Company
Stan Jenkins, The Boeing Company
Edward Laase, The Boeing Company
Kenneth Medlin, The Boeing Company
Jeffrey Trauberman, The Boeing Company
Ric Vandermeulen, The Boeing Company
Gian Paolo Cantarella, WorldSpace Corp
Roxana Dunnette, WorldSpace Corporation
Safia Sawat, WorldSpace Corporation

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Alejandra Ornes, Astrolink
Richard Parlow, Globalstar
Farid Razaqpur, Globalstar
Barbara Ramsay, Hughes Space and Comm
Paul Krebs, Nortel Networks
Kalpak Gude, PanAmSat
Arek Dreyer, RFC Holdings
Mark Spinrad, RFC Holdings
Mario Florian, SkyBridge
Diane Gaylor, SkyBridge
Andrei Makarov, SkyBridge
Peter Nuspl, WinStar Communications
William Rummler, WinStar Communications
Gonzalo de Dios, WinStar Communications
Jennifer Dudley, WinStar Communications
Tim Graham, WinStar Communications
Laura Janke, WinStar Communications
Joseph Sandri, WinStar Communications
Peter Soltesz, WinStar Communications

ANNEX C

U.S. Delegation Task Assignments

| Last Name | First | Group/Agenda Item/Region | Role(s) |
|------------------|--------------|---|---|
| Allison | Audrey | Working Group 4B | Chairperson |
| Baum | Kim | 1.19, 1.19bis, 1.20, 1.21 | Spokesperson |
| Brandel | Dan | Drafting Group 5B-2b | Chairperson |
| Brieg | Charlie | 1.5, 1.8 | Spokesperson |
| Buchanan | Julie | Delegation | Ambassador's Staff, Int'l Outreach Coordinator |
| Davison | Eddie | Sub-working Group 5D3 | Sub-spokesperson |
| De La Torre | Mindel | Americas | Regional Coordinator |
| Drazenovich | Darlene | 1.6, 1.7, 1.10, 1.18 | Spokesperson |
| Franc | Dave | Sub-working Group 5B-3 | Sub-spokesperson |
| Frank | Robin | Sub-working Group 4A-9 | Sub-spokesperson |
| Frazier | Bob | Sub-working Group 5B-2 | Sub-spokesperson |
| Garcia | Julie | Working Group 5D; 1.13 | Spokesperson |
| Gergely | Tom | 1.14 | Spokesperson |
| Hatch | Bill | Committee 5; 1.1, 1.2, 1.3, 2, 4, | Vice Chair (substitute), Spokesperson |
| Holiday | Cecily | Working Group 5C; 1.4, 1.5 | Spokesperson |
| Hutchings | Suzanne | Anglophone Africa | Regional Coordinator |
| Jahn | Bill | Free Flow and Palestinian Issues | Spokesperson |
| Jansky | Don | Working Group 4A, Drafting Group 5C-3 ad hoc 1 | Chairperson, Chairperson |
| Jillson | Anne | Committee 2 | Spokesperson, Scheduling |
| Kaltenmark | Steve | Sub-Working Group 4A-4 | Chairperson |
| Kaufman | Brad | Drafting Group 5C-3a, Drafting Group 5C ad hoc 2 | Chairperson, Sub-spokesperson |
| Kimball | Hal | Sub-Working Group 5A-1 | Chairperson |
| Ladson | Damon | Delegation; Committee 5; Working Group 5A; 1.6, 1.5 | Vice Chair, Spokesperson, |
| Manner | Jennifer | Eastern/Central Europe | Regional Coordinator |
| Medley | Kathryn | 1.4 | Spokesperson |
| Messer | Don | Committee 6 | Spokesperson |
| Nebbia | Karl | Delegation; Committee 5; Working Group 4B, 1.1, 1.2, 1.3, 2, 4, | Vice Chair, Spokesperson |
| Nelson | Eric | Asia/Pacific | Regional Coordinator |
| Pearson | Cliff | 1.7, 1.18 | Spokesperson (fill-in) |
| Ramsay | Brian | Delegation; Committee 3 | Executive Director, Spokesperson |
| Reaser | Rick | Delegation; Committee 5 ad hoc 1 | Ambassador's Staff, Press Officer, Sub-spokesperson |

| | | | |
|------------|----------|--|---------------------------------|
| Reed | Larry | Working Group 4A; Res.PP 80, 84, 85, 87, 88 | Spokesperson |
| Reinhart | Ed | GT Plenary-1/Drafting Group-1 | Sub-spokesperson |
| Richmond | Mike | 1.7, 1.10 | Spokesperson (fill-in) |
| Roytblat | Alex | 1.11, 1.12 | Spokesperson |
| Sharkey | Steve | Drafting Group 5A-2 | Chairperson |
| Spalt | Doug | Committee 4; Working Group 4A; Sub-Working Group 4A-8; Res.PP 80, 84, 85, 87, 88 | Chairperson, Spokesperson |
| Spence | Rod | Drafting Group 5B-2b | Sub-spokesperson |
| Vorhies | Jim | Working Group 5B; 1.9, 1.15.1, 1.15.2, 1.15.3 | Spokesperson |
| Wamback | Wayne | Sub-Working Group 5B-3 | Sub-spokesperson |
| Warren | Jennifer | Francophone Africa | Regional Coordinator |
| Weinreich | Dave | 1.15 (RDSS) | Sub-spokesperson |
| Wengruniuk | Jack | Western Europe | Regional Coordinator |
| Whyte | Wayne | 1.17 | Spokesperson |
| Williams | Frank | Delegation; 7.2 | Vice Chair, Spokesperson |
| Wilson | Joanne | Caribbean | Regional Coordinator |
| Younes | Badri | Delegation; Middle East/N. Africa | WoRC Room, Regional Coordinator |
| Zuzek | John | 1.16 | Spokesperson |

ANNEX D

International Outreach Assignments

International Outreach Coordinator:

Julie Buchanan

Anglophone Africa

Region Coordinator: Suzanne Hutchings

| | |
|---------------|-------------------|
| Botswana: | Alex Latker |
| Eritrea: | Alex Latker |
| Ethiopia: | Steve Kaltenmark |
| Gambia, The: | Chris Hofer |
| Ghana: | Steve Kaltenmark |
| Kenya: | Audrey Allison |
| Lesotho: | Jeffery Freedman |
| Liberia: | Jeffery Freedman |
| Namibia: | Chris Hofer |
| Nigeria: | Roscoe Moore |
| South Africa: | Donna Bethea |
| Swaziland: | Jennifer McCarthy |
| Tanzania: | Jennifer McCarthy |
| Uganda: | Michael Lynch |
| Zambia: | Adam Stone |
| Zimbabwe: | Warren Richards |

Asia/Pacific

Region Coordinator: Eric Nelson

| | |
|-------------------|-------------------|
| Australia: | Cindy Raiford |
| Bangladesh: | Wayne Longman |
| Bhutan: | Edward Reinhart |
| Brunei: | Robin Frank |
| Cambodia: | Leslie Taylor |
| China: | Jennifer Bosworth |
| India: | Joanne Wilson |
| Indonesia: | Alan Renshaw |
| Japan: | Carmi Weinzweig |
| Korea, South: | Mark Racek |
| Laos: | Y.C. Lee |
| Malaysia: | Thomas Walsh |
| Maldives: | Roscoe Moore |
| Mongolia: | Alan Renshaw |
| Nepal: | Jennifer Bosworth |
| New Zealand: | Jay Ramasastry |
| Papua New Guinea: | Tom Johnston |

| | |
|--------------|--------------------|
| Philippines: | Roger LeClair |
| Singapore: | Thomas Walsh |
| Sri Lanka: | Julie Zoller |
| Thailand: | Robin Frank |
| Tonga: | Hau Ho |
| Tuvalu: | William Tranavitch |
| Vietnam: | Hau Ho |

Eastern/Central Europe

Region Coordinator: Jennifer Manner

| | |
|-------------------------|----------------|
| Armenia: | James Byrd |
| Azerbaijan: | Joe Santoru |
| Belarus: | Jack Miller |
| Bosnia and Herzegovina: | Melvin Barmat |
| Bulgaria: | Dick Barth |
| Croatia: | Jack Miller |
| Czech Republic: | Ray Crowell |
| Estonia: | Tom Keller |
| Georgia: | Tom Keller |
| Hungary: | Ferdo Ivanek |
| Kazakhstan: | James Byrd |
| Kyrgyz Republic: | Bill Jahn |
| Latvia: | Kris Hutchison |
| Lithuania: | Dan Brandel |
| Macedonia: | Ralph Crenshaw |
| Moldova: | Eric Kinsinger |
| Poland: | Dave Franc |
| Romania: | Kris Hutchison |
| Russian Federation: | Frank Urbany |
| Slovak Republic: | Ray Crowell |
| Slovenia: | Eric Kinsinger |
| Ukraine: | Bill Jahn |
| Uzbekistan: | Paul Rinaldo |

Francophone Africa

Regional Coordinator: Jennifer Warren

| | |
|---------------------------|------------------|
| Angola: | Tom Hayden |
| Benin: | Ed Davison |
| Burkina Faso: | Christine DiLapi |
| Burundi: | Matt Botwin |
| Cameroon: | Matt Botwin |
| Cape Verde: | Ann Ciganer |
| Central African Republic: | Guy Christiansen |
| Chad: | Bob Higgins |
| Comoros: | Ed Davison |
| Congo: | Mark Grannis |
| Cote d'Ivoire: | Frank Weaver |
| Djibouti: | Bob Higgins |
| Gabon: | Guy Christiansen |
| Guinea: | Rod Spence |
| Madagascar: | Paul Locke |
| Mali: | Christine DiLapi |
| Mozambique: | Ann Ciganer |
| Niger: | Frank Weaver |
| Senegal: | Julie Buchanan |
| Seychelles: | Tom Hayden |
| Togo Republic: | Paul Locke |

Middle East and North Africa

Region Coordinator: Badri Younes

| | |
|-----------------------|-----------------|
| Algeria: | Katherine Green |
| Bahrain: | Pete Blais |
| Egypt: | Gene Rappoport |
| Israel: | Scott Marin |
| Jordan: | Mark Lewellen |
| Kuwait: | Rich Wright |
| Lebanon: | Edward Miller |
| Mauritania: | Peggy Palmer |
| Morocco: | Don Jansky |
| Oman: | Peggy Palmer |
| Pakistan: | Phil Rubin |
| Qatar: | Rich Wright |
| Saudi Arabia: | Mike Richmond |
| Sudan: | Cliff Pearson |
| Syria: | Don Messer |
| Tunisia: | Cliff Pearson |
| United Arab Emirates: | Biren Shah |
| Yemen: | Biren Shah |

International Organizations

Coordinator: Gail Schoettler

| | |
|-------|---------------|
| EC: | John Giusti |
| ESA: | Scott Pace |
| GCC: | Peggy Palmer |
| ICAO: | Don Willis |
| NATO: | Cindy Raiford |
| WMO: | Dave Franc |

The Americas

Region Coordinator: Mindel De La Torre

| | |
|-------------|-------------------|
| Argentina: | Raul Rodriguez |
| Bolivia: | Benito Gutierrez- |
| Luaces | |
| Brazil: | Craig Holman |
| Canada: | Cindy Raiford |
| Colombia: | Raul Rey |
| Costa Rica: | Wayne Wamback |
| Ecuador: | Hal Kwalwasser |
| Guatemala: | Bruce Olcott |
| Guyana: | Ken Turner |
| Honduras: | Jim Janky |
| Mexico: | Giselle Creeser |
| Paraguay: | Ted Berman |
| Suriname: | Ken Turner |
| Uruguay: | Neil McElroy |
| Venezuela: | Cecily Cohen |

The Caribbean

Region Coordinator: Joanne Wilson

| | |
|---------------------|-----------|
| Dominican Republic: | David Wye |
| Jamaica: | Rob Kubik |

Western Europe

Region Coordinator: Jack Wengryniuk

| | |
|-----------------|-----------------|
| Andorra: | Don Willis |
| Austria: | Tom Trimmer |
| Belgium: | Claire Jacobsen |
| Cyprus: | Bob Frazier |
| Denmark: | Steve Baruch |
| Finland: | Brad Kaufman |
| France: | Steve Sharkey |
| Germany: | Karen Gielen |
| Greece: | Don Brittingham |
| Iceland: | Janet King |
| Ireland: | Dave McGinnis |
| Italy: | Dave Weinreich |
| Liechtenstein: | Scott Pace |
| Luxembourg: | Robert Taylor |
| Malta: | Scott Pace |
| Monaco: | Claire Jacobsen |
| Netherlands: | John Giusti |
| Norway: | Bob Hanson |
| Portugal: | Jack Wengryniuk |
| San Marino: | Janet King |
| Spain: | Jamie Hedlund |
| Sweden: | Bob Nelson |
| Switzerland: | Hal Kimball |
| Turkey: | Jeff Binckes |
| United Kingdom: | Walda Roseman |
| Vatican City: | Dave Weinreich |

ANNEX E

RESOLUTION 1130

AGENDA FOR THE WORLD RADIOCOMMUNICATION CONFERENCE (WRC-2000)

The Council,

noting

that Resolution 721 of the World Radiocommunication Conference (Geneva, 1997):

- a) resolved to recommend to the Council that a world radiocommunication conference be held in Geneva in late 1999 for a period of four weeks;
- b) recommended its agenda, and invited the Council to finalize the agenda and arrange for the convening of WRC-99 and to initiate as soon as possible the necessary consultation with Member States,

resolves

to convene a World Radiocommunication Conference (WRC-2000) in Istanbul (Turkey) from 8 May - 2 June 2000, with the following agenda:

- 1 on the basis of proposals from administrations and the Report of the Conference Preparatory Meeting, taking account of the results of the 1997 World Radiocommunication Conference (WRC-97), and with due regard to the requirements of existing and future services in the bands under consideration, to consider and take appropriate action in respect of the following topics:
 - 1.1 requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, in accordance with Resolution **26 (Rev.WRC-97)**;
 - 1.2 to finalize remaining issues in the review of Appendix **S3** to the Radio Regulations with respect to spurious emissions for space services, taking into account Recommendation **66 (Rev.WRC-97)** and the decisions of WRC-97 on adoption of new values, due to take effect at a future time, of spurious emissions for space services;
 - 1.3 to consider the results of ITU-R studies in respect of Appendix **S7/28** on the method for the determination of the coordination area around an earth station in frequency bands shared among space services and terrestrial radiocommunication services, and take the appropriate decisions to revise this Appendix;
 - 1.4 to consider issues concerning allocations and regulatory aspects related to Resolutions **126 (WRC-97)**, **128 (WRC-97)**, **129 (WRC-97)**, **133 (WRC-97)**, **134 (WRC-97)** and **726 (WRC-97)**;
 - 1.5 to consider regulatory provisions and possible additional frequency allocations for services using high altitude platform stations, taking into account the results of ITU-R studies conducted in response to Resolution **122 (WRC-97)**;

1.6 issues related to IMT-2000;

1.6.1 review of spectrum and regulatory issues for advanced mobile applications in the context of IMT-2000, noting that there is an urgent need to provide more spectrum for the terrestrial component of such applications and that priority should be given to terrestrial mobile spectrum needs, and adjustments to the Table of Frequency Allocations as necessary;

1.6.2 identification of a global radio control channel to facilitate multimode terminal operation and worldwide roaming of IMT-2000;

1.7 review of the use of the HF bands by the aeronautical mobile (R) and maritime mobile services with a view to protecting operational, distress and safety communications, taking into account Resolution **346 (WRC-97)**;

1.8 to consider regulatory and technical provisions to enable earth stations located on board vessels to operate in the fixed-satellite service (FSS) networks in the bands 3 700 - 4 200 MHz and 5 925 - 6 425 MHz, including their coordination with other services allocated in these bands;

1.9 to take into account the results of ITU-R studies in evaluating the feasibility of an allocation in the space-to-Earth direction to the mobile-satellite service (MSS) in a portion of the 1 559 - 1 567 MHz frequency range, in response to Resolutions **213 (Rev.WRC-95)** and **220 (WRC-97)**;

1.10 to consider results of ITU-R studies carried out in accordance with Resolution **218 (WRC-97)** and take appropriate action on this subject;

1.11 to consider constraints on existing allocations and to consider additional allocations on a worldwide basis for the non-geostationary (non-GSO) MSS below 1 GHz, taking into account the results of ITU-R studies conducted in response to Resolutions **214 (Rev.WRC-97)** and **219 (WRC-97)**;

1.12 to consider the progress of studies on sharing between feeder links of non-GSO MSS networks and GSO FSS networks in the bands 19.3 - 19.7 GHz and 29.1 - 29.5 GHz, taking into account Resolution **121 (Rev.WRC-97)**;

1.13 on the basis of the results of the studies in accordance with Resolutions **130 (WRC-97)**, **131 (WRC-97)** and **538 (WRC-97)**:

1.13.1 to review and, if appropriate, revise the power limits appearing in Articles **S21** and **S22** in relation to the sharing conditions among non-GSO FSS, GSO FSS, GSO broadcasting-satellite service (BSS), space sciences and terrestrial services, to ensure the feasibility of these power limits and that these limits do not impose undue constraints on the development of these systems and services;

1.13.2 to consider the inclusion in other frequency bands of similar limits in Articles **S21** and **S22**, or other regulatory approaches to be applied in relation to sharing situations;

1.14 to review the results of the studies on the feasibility of implementing non-GSO MSS feeder links in the 15.43 - 15.63 GHz in accordance with Resolution **123 (WRC-97)**;

1.15 issues related to the radionavigation-satellite service:

1.15.1 to consider new allocations to the radionavigation-satellite service in the range from 1 GHz to 6 GHz required to support developments;

1.15.2 to consider the addition of the space-to-space direction to the radionavigation-satellite service allocations in the bands 1 215 - 1 260 MHz and 1 559 - 1 610 MHz;

- 1.15.3 to consider the status of allocations to services other than the radionavigation-satellite service (Nos. **S5.355** and **S5.359**) in the band 1 559 - 1 610 MHz;
- 1.16 to consider allocation of frequency bands above 71 GHz to the earth exploration-satellite (passive) and radio astronomy services, taking into account Resolution **723 (WRC-97)**;
- 1.17 to consider possible worldwide allocation for the earth exploration-satellite (passive) and space research (passive) services in the band 18.6 - 18.8 GHz, taking into account the results of the ITU-R studies;
- 1.18 to consider the use of new digital technology for the maritime mobile service in the band 156 - 174 MHz and consequential revision of Appendix **18/S18**, taking into account Resolution **342 (WRC-97)**;
- 1.19 to consider the report of the inter-conference representative group (IRG) submitted by the Director of the Radiocommunication Bureau and determine the basis for replanning by the next conference so as to afford each country an amount of spectrum that permits the economical development of a broadcasting-satellite service system;
- 1.19bis in accordance with Article S14, to consider objections expressed by administrations with respect to the Radio Regulations Board's Rules of Procedure relating to the application of RR 2674/S23.13 in order for the Bureau to modify its findings in accordance with the conclusions of the Conference;
- 1.20 to consider the issues related to the application of Nos. **S9.8**, **S9.9** and **S9.17** and the corresponding parts of Appendix **S5** with respect to Appendices **S30** and **S30A**, with a view to possible deletion of Articles 6 and 7 of Appendices **S30** and **S30A**, also taking into consideration Recommendation **35 (WRC-95)**;
- 1.21 to consider the report from the Radiocommunication Bureau on results of the analysis in accordance with Resolution **53 (WRC-97)** and take appropriate actions;
- 2 to examine the revised ITU-R recommendations incorporated by reference in the Radio Regulations in accordance with Resolution **28 (WRC-95)**; and decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the Annex to Resolution **27 (Rev.WRC-97)**;
- 3 to consider such consequential changes and amendments to the Radio Regulations as may be necessitated by the decisions of the Conference;
- 4 in accordance with Resolution **95 (WRC-97)**, to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation;
- 5 to review, and take appropriate action on, the report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention (Geneva, 1992);
- 6 to identify those items requiring urgent action by the radiocommunication study groups in preparation for the next world radiocommunication conference;
- 7 in accordance with Article 7 of the Convention (Geneva, 1992):
- 7.1 to consider and approve the report of the Director of the Radiocommunication Bureau on the activities of the Radiocommunication Sector since WRC-97;
- 7.2 to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent Conference and on possible agenda items for future conferences,

instructs the Director of the Radiocommunication Bureau

to make the necessary arrangements to convene meetings of the Conference Preparatory Meeting and to prepare a report to WRC-2000,

instructs the Secretary-General

- 1 to make all the necessary arrangements, in agreement with the Director of the Radiocommunication Bureau, for the convening and holding of the Conference;
 - 2 to communicate this Resolution to concerned international and regional organizations.
-

ANNEX F

STRUCTURE AND CHAIRPERSONS OF WORLD RADIOCOMMUNICATION CONFERENCE 2000

The following committees and Chairpersonss were adopted. The terms of reference were drawn up within the framework of the Constitution and Convention, the Conference agenda and in the light of experience at previous conferences.

Chairperson of the Conference: Mr. Fatih Mehmet Yurdal (Turkey)

Vice-Chairpersons of the Conference: Mrs G. Schoettler (United States)
Mr J.S. Strick (Germany)
Mr L. Reyman (Russia)
Mr I. Samake (Mali)
Mr H. Ishihara (Japan)
Mr A. Berrada (Morocco)

Committee 1 – Steering Committee

Composed of the Chairperson and Vice-Chairpersons of the Conference and of the Chairperson and Vice-Chairpersons of the other Committees and of the Working Groups of the Plenary.

Terms of reference:

To coordinate all matters connected with the smooth execution of work and to plan the order and number of meetings, avoiding overlapping wherever possible in view of the limited number of members of some delegations (No. 360 of the Convention, Geneva, 1992).

Committee 2 – Credentials Committee

Chairperson: Mr A.M.T. Abu (Nigeria)

Vice-Chairperson: Mr R. Chen (China)

Terms of reference:

To verify the credentials of delegations , in conformity with Article 31 of the ITU Convention, and to report on its conclusions to the Plenary Meeting within the time specified by No. 361 of the Convention, Geneva, 1992.

Committee 3 – Budget Control Committee

Chairperson: Mr B. Gracie (Canada)

Vice-Chairperson: Mr M. Tabeshian (Islamic Republic of Iran)

Terms of reference:

To determine the organization and the facilities available to the delegates, to examine and approve the accounts for expenditure incurred throughout the duration of the conference, and to report to the Plenary Meeting the

estimated total expenditure of the conference, as well as an estimate of the costs that may be entailed by the execution of the decisions taken by such a conference (Nos. 364 to 366 of the Convention, Geneva, 1992).

Committee 4 – Regulatory and Associated Issues

Chairperson: Mr H. Railton (RRB)
Vice-Chairpersons: Mr N. Kisrawi (Syria)
Mr L. Petzer (South Africa)

Terms of reference:

On the basis of proposals by administrations and the Report from the Conference Preparatory Meeting:

1. **Review of footnotes (Agenda item 1.1).** Requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, in accordance with Resolution 26 (rev.WRC-97).
2. **Review of Appendix S3 (Agenda item 1.2).** To finalize remaining issues in the review of appendix S3 to the Radio Regulations with respect to spurious emissions for space services, taking into account Recommendation 66 (rev.WRC-97) and the decisions of WRC-97 on adoption of new values, due to take effect at a future time, of spurious emissions for space services.
3. **Review of Appendix S7 (Agenda item 1.3).** To consider the results of ITU-R studies in respect of appendix S7/28 on the method for the determination of the coordination area around an earth station in frequency bands shared among space services and terrestrial radiocommunication services, and take the appropriate decisions to revise this appendix.
4. **Earth station on vessels (Agenda item 1.8).** To consider regulatory and technical provisions to enable earth stations located on board vessels to operate in the fixed-satellite service (FSS) networks in the bands 3 700 - 4 200 MHz and 5 925 - 6 425 MHz, including their coordination with other services allocated in these bands.
5. **Appendix S30 and S30A (Agenda item 1.20).** At the request of GT/Plen 1, to consider any issue related to the application of Nos. S9.8, S9.9 and S9.17 and the corresponding parts of appendix S5 with respect to appendices S30 and S30A, with a view to possible deletion of articles 6 and 7 of appendices S30 and S30A, also taking into consideration Recommendation 35 (WRC-95).
6. **Incorporation by reference (Agenda item 2).** To examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations in accordance with Resolution 28 (WRC-95); and decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the annex to Resolution 27 (rev.WRC-97).
7. **Review of Resolutions and Recommendations (Agenda item 4).** In accordance with Resolution 95 (WRC-97), to review the Resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation.
8. **Plenipotentiary Conference Resolutions. Resolution 80:** WRC process. **Resolution 85:** Evaluation of Administrative Due diligence. **Resolution 86:** Satellite filings procedure. **Resolution 87:** Role of the notifying

administration on behalf of a named group of administrations. **Resolution 88:** Processing charges for satellite network filings

9. To consider any other item submitted to the Committee by the Plenary

Committee 5 – Allocations and Associated Issues

Chairperson: Mr C. van Diepenbeek (Netherlands)

Vice-Chairpersons: Mr H.K. Al-Shankiti (Saudi Arabia)
Mr H. Fernandez Macbeath (Cuba)

Terms of reference:

On the basis of proposals by administrations and the Report from the Conference Preparatory Meeting:

1. **High Density Fixed Service (Agenda item 1.4).** To consider issues concerning allocations and regulatory aspects related to Resolutions 126 (WRC-97), 128 (WRC-97), 129 (WRC-97), 133 (WRC-97), 134 (WRC-97) and 726 (WRC-97).
2. **High Altitude Platforms (Agenda item 1.5).** To consider regulatory provisions and possible additional frequency allocations for services using high altitude platform stations, taking into account the results of ITU-R studies conducted in response to Resolution 122 (WRC-97)
3. **IMT-2000 (Agenda items 1.6.1 and 1.6.2).** Review of spectrum and regulatory issues for advanced mobile applications in the context of IMT-2000, noting that there is an urgent need to provide more spectrum for the terrestrial component of such applications and that priority should be given to terrestrial mobile spectrum needs, and adjustments to the table of frequency allocations as necessary. Identification of a global radio control channel to facilitate multimode terminal operation and worldwide roaming of IMT-2000.
4. **Review of use of the HF bands by aeronautical and maritime mobile services (Agenda item 1.7).** Review of the use of the HF bands by the aeronautical mobile (R) and maritime mobile services with a view to protecting operational, distress and safety communications, taking into account Resolution 346 (WRC-97).
5. **Feasibility of an MSS allocation (space to earth) in the bands 1559-1567 MHz (Agenda item 1.9).** To take into account the results of ITU-R studies in evaluating the feasibility of an allocation in the space-to-earth direction to the mobile-satellite service (MSS) in a portion of the 1 559 - 1 567 MHz frequency range, in response to Resolutions 213 (WRC-97) and 220 (WRC-97).
6. **Feasibility of a generic MSS allocation in the bands 1.5-1.7 GHz (Agenda item 1.10).** To consider results of ITU-R studies carried out in accordance with Resolution 218 (WRC-97) and take appropriate action on this subject.
7. **Review of worldwide NGSO MSS allocations below 1 GHz (Agenda item 1.11).** To consider constraints on existing allocations and to consider additional allocations on a worldwide basis for the non-geostationary (non-GSO) MSS below 1 GHz, taking into account the results of ITU-R studies conducted in response to Resolutions no. 214 (rev.WRC-97) and 219 (WRC-97).

8. **NGSO MSS and GSO FSS feeder links in the bands 20/30 GHz (Agenda item 1.12).** To consider the progress of studies on sharing between feeder links of non-GSO MSS networks and GSO FSS networks in the bands 19.3 - 19.7 GHz and 29.1 - 29.5 GHz, taking into account Resolution 121 (rev. WRC-97).
9. **NGSO FSS (Agenda item 1.13.1 and 1.13.2).** On the basis of the results of the studies in accordance with Resolutions 130 (WRC-97), 131 (WRC-97) and 538 (WRC-97). To review and, if appropriate, revise the power limits appearing in articles S21 and S22 in relation to the sharing conditions among non-GSO FSS, GSO FSS, GSO broadcasting-satellite service (BSS), space sciences and terrestrial services, to ensure the feasibility of these power limits and that these limits do not impose undue constraints on the development of these systems and services. To consider the inclusion in other frequency bands of similar limits in articles S21 and S22, or other regulatory approaches to be applied in relation to sharing situations.
10. **NGSO MSS feeder links in the band 15 GHz (Agenda item 1.14).** To review the results of the studies on the feasibility of implementing non-GSO MSS feeder links in the 15.43 - 15.63 GHz in accordance with Resolution 123 (WRC-97).
11. **Radionavigation satellite (Agenda items 1.15.1, 1.15.2 and 1.15.3).** To consider new allocations to the radionavigation-satellite service in the range from 1 GHz to 6 GHz required to support developments. To consider the addition of the space-to-space direction to the radionavigation-satellite service allocations in the bands 1 215 - 1 260 MHz and 1 559 - 1 610 MHz. To consider the status of allocations to services other than the radionavigation-satellite service (Nos. S5.355 and S5.359) in the band 1 559 - 1 610 MHz.
12. **Radioastronomy and passive allocations greater than 71 GHz (Agenda item 1.16).** To consider allocation of frequency bands above 71 GHz to the earth exploration-satellite (passive) and radio astronomy services, taking into account Resolution 723 (WRC-97).
13. **Earth exploration and space research and passive allocations at 18 GHz (Agenda item 1.17).** To consider possible worldwide allocation for the earth exploration-satellite (passive) and space research (passive) services in the band 18.6 - 18.8 GHz, taking into account the results of the ITU-R studies.
14. **Digital technologies in mobile maritime (Appendix S18) (Agenda item 1.18).** To consider the use of new digital technology for the maritime mobile service in the band 156 - 174 MHz and consequential revision of appendix 18/S18, taking into account Resolution 342 (WRC-97).
15. To consider any other item submitted to the Committee by the Plenary.

Committee 6 – Editorial Committee

Chairperson: Mr L. Bourgeat (France)
Vice-Chairpersons: Mr M. Johnson (United Kingdom)
Mr C. Menendez Argüelles (Spain)

Terms of reference:

To perfect the form of the texts to be included in the Final Acts of the Conference without altering the sense, for submission to the Plenary Meeting (Nos. 362 and 363 of the Convention, Geneva, 1992).

Working Group 1 of the Plenary

Chairperson: Mr R. Zeitoun (Canada)
Vice-Chairpersons: Mr S. Djematene (Algeria)
Mr A. Frederich (Sweden)

Terms of reference:

1. **Agenda item 1.19.** To consider the report of the inter-conference representative group (IRG) submitted by the Director of the Radiocommunication Bureau and determine the basis for replanning by the next conference so as to afford each country an amount of spectrum that permits the economical development of a broadcasting-satellite service system.
2. **Agenda item 1.19bis.** In accordance with article S14, to consider objections expressed by administrations with respect to the radio regulation board rules of procedure relating to the application of RR 2674/S23.13 in order for the bureau to modify its findings in accordance with the conclusions of the conference.
3. **Agenda item 1.20.** To consider the issues related to the application of Nos. S9.8, S9.9 and S9.17 and the corresponding parts of appendix S5 with respect to appendices S30 and S30a, with a view to possible deletion of articles 6 and 7 of appendices S30 and S30a, also taking into consideration Recommendation 35 (WRC-95).
4. **Agenda item 1.21.** To consider the report from the Radiocommunication Bureau on results of the analysis in accordance with Resolution 53 (WRC-97) and take appropriate actions.
5. To consider any other item submitted to the Working Group of the Plenary.

Working Group 2 of the Plenary

Chairperson: Mr E. George (Germany)
Vice-chairperson: Mr A. Zourmba (Cameroon)

Terms of reference:

1. **Agenda item 5.** To review, and take appropriate action on those items of the report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention (Geneva, 1992).
2. **Agenda item 6.** To identify those items requiring urgent actions by the radiocommunication study groups in preparation for the next World Radiocommunication Conference in accordance with Article 7 of the Convention (Geneva, 1992)
3. **Agenda item 7.1.** To consider and approve the report of the Director of the Radiocommunication Bureau on the activities of the Radiocommunication Sector since WRC-97.
4. **Agenda item 7.2.** To recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences.
5. To consider any other item submitted to the Working Group of the Plenary.

Annex G

WRC-2000 Subcommittee Structure and U.S. Delegation spokespersons

| Committee | Working Group | Sub-Working Group/ Drafting Group | Issues | Agenda Items | Chairperson | Country | US Spokesperson |
|--------------|---------------|--------------------------------------|---|---|-----------------|---------------------------------------|---------------------|
| COM 1 | | | Steering | N/A | M. Yurdal | Turkey | Amb Schoettler |
| COM 2 | | | Credentials | N/A | A.M.T. Abu | Nigeria | A. Jillson |
| COM 3 | | | Budget Control | N/A | B. Gracie | Canada | B. Ramsay |
| COM 4 | | | Regulatory and Associated Issues | 1.1, 1.2, 1.3, 1.8, 1.20, 2, 4, 1998 Plenipotentiary Conference Resolutions (PP-98) | H. Railton | Radio Regulations Board (New Zealand) | D. Spalt |
| | WG 4A | | Agenda Items 1.3, PP-98 Res 84, Res 85, Res 86, Res 87, Res 88 | | N. Kisrawi | Syria | D. Spalt L. Reed |
| | | SWG 4A-1 | Earth Station Coordination Areas (App S7) | 1.3 | J-C. Prevotat | France | K. Nebbia |
| | | DG 4A-1-3 | Earth Station Coordination Areas (App S7) | 1.3 | J-C. Prevotat | France | K. Nebbia |
| | | SWG 4A-2 | Mods of Art. S13, Rules of Procedure RRB | PP-98 Res 84 | G. Brooks | Luxemborg | D. Spalt L. Reed |
| | | SWG 4A-3 | Administrative Due Diligence | PP-98 Res 85 | A. Frederich | Sweden | D. Spalt L. Reed |
| | | SWG 4A-4 | Non-GSO BSS (Sound) – unplanned bands | PP-98 Res 86 | S. Kaltenmark | United States | L. Reed |
| | | SWG 4A-5 | Date of bringing into use Separation of up and downlinks Mandatory electronic filing Publication of coordination requests Identification of networks subject to coordination Suspension of BR notification | PP-98 Res 86 | J. Alberquerque | Brazil | D. Spalt L. Reed |

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|--------------|--------------|----------------------------------|---|--|-------------------|----------------|------------------------|
| | | | Deletion of API for networks subject to coordination | | | | |
| | | SWG 4A-6 | Definition of the inclination of an orbit Deadline for notification RR S5.43 Definition of a frequency assignment Impact of delay of publication by the BR CD ROMS – special actions from the past 10 years Possible modifications to Appendix S5 | PP-98 Res 86 | P. McGill | Australia | D. Spalt/L. Reed |
| | | SWG 4A-7 | Role of Notifying Administrations | PP-98 Res 87 | R. Amero | Canada | L. Reed |
| | | SWG 4A-8 | Satellite network cost recovery – consequences of non-payment | PP-98 Res 88 | D. Spalt | United States | L. Reed |
| | | SWG 4A-9 | Resolution 80 (WRC-97) | PP-98 Res 80 | | | R. Frank |
| | WG 4B | Agenda Items 1.1, 1.2, 1.8m 2, 4 | | | A. Allison | United States | K. Nebbia |
| | | SWG 4B-1 | App S3 – spurious emissions for space stations | 1.2 | A. Jabbar | Pakistan | K. Nebbia |
| | | SWG 4B-2 | Earth Stations Aboard Vessels | 1.8 | L. Petzer | South Africa | C. Breig |
| | | DSWG 4B-2 | Earth Stations Aboard Vessels | 1.8 | | | C. Breig |
| | | SWG 4B-3 | Incorporation by Reference | 2 | J. Shaw | United Kingdom | K. Nebbia |
| | | SWG 4B-3 | Revision of Recommendations and Resolutions | 4 | M. Murotani | Japan | K. Nebbia |
| COM 5 | | | Allocations and Associated Issues | 1.4, 1.6.1, 1.6.2, 1.7, 1.9, 1.10, 1.11, 1.12, 1.13.1, 1.13.2, 1.14, 1.15.1, 1.15.2, | C. van Diepenbeek | Netherlands | K. Nebbia D. Ladson |

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|--|--------------|-----------------------------------|--|-----------------------------|----------------|----------------|----------------------------|
| | | | | 1.15.3, 1.16, 1.17, 1.18 | | | |
| | WG 5A | Agenda Items 1.6, 1.10, 1.11 | | | A. Jamieson | New Zealand | D. Ladson |
| | | DG 5A-1 | IMT-2000 terrestrial component below 1 GHz | 1.6.1 | S. Towaij | Canada | D. Ladson |
| | | SWG 5A-1 | IMT-2000 satellite component and HAPS | 1.6.1 | H. Kimball | United States | D. Ladson |
| | | DG 5A-1a | IMT-2000 HAPS | 1.6.1 | S. Toscana | Portugal | D. Ladson |
| | | DG 5A-1b | IMT-2000 satellite component | 1.6.1 | K. Wee | Korea | D. Ladson |
| | | SWG 5A-2 | Generic MSS and MSS Below 1 GHz | 1.10, 1.11 | M. Razi | Canada | M. Richmond A. Roytblat |
| | | DG 5A-2 | IMT-2000 Resolutions | 1.6.1 | S. Sharkey | United States | D. Ladson |
| | | DG 5A-2a | Generic MSS | 1.10, 1.11 | M. Razi | Canada | M. Richmond A. Roytblat |
| | WG 5B | Agenda Items 1.7, 1.9, 1.15, 1.18 | | | T. Mizuike | Japan | J. Vorhies |
| | | SWG 5B-1 | HF Distress, Digital App 18 | 1.7, 1.18 | P. Lansman | Finland | C. Pearson |
| | | SWG 5B-2 | RNSS | 1.15 | T. Mizuike | Japan | J. Vorhies |
| | | DG 5B-2a | Galileo and L5 | 1.15.1 | V. Meens | France | R. Frazier |
| | | DG 5B-2b | Space to Space | 1.15.2 and 1.15.3 | D. Brandel | United States | R. Spence |
| | | DG 5B-2c | RDSS | N/A | F. B Xie | China | D. Weinreich |
| | | SWG 5B-3 | MSS in the 1518-1525 and 1693-1690 MHz bands | 1.9 | K. Moody | New Zealand | W. Wamback D. Franc |
| | | | | | | | |
| | WG 5C | Agenda Items 1.4, 1.5, 1.16, 1.17 | | | D. Jansky | United States | C. Holiday |
| | | SWG 5C-1 | HAPS | 1.5 | K. Yard | United Kingdom | C. Holiday |
| | | SWG 5C-2 | Above 71 GHz, 18.6-18.8 | 1.16, 1.17 | S. Sayeenathan | India | C. Holiday |
| | | SWG 5C-3 | HDFS | 1.4 | D. Jansky | United States | C. Holiday |

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|------------------|--------------|---|---|------------------------------|---------------|----------------|-------------------------------------|
| | | DG 5C-3a | 56 GHz | 1.4 | B. Kaufman | United States | C. Holiday |
| | | DG 5C-3c | 37-43.5 GHz | 1.4 | O. Marzouk | France | C. Holiday |
| | | DG 5C-3 ad hoc | Allocations in the above range | 1.4 | D. Jansky | United States | C. Holiday |
| | WG 5D | Agenda Items 1.12, 1.13, 1.14 | | | J Leary | Japan | J. Garcia |
| | | SWG 5D-1 | Summary of Proposals | 1.13 | M. Dupuis | Canada | J. Garcia |
| | | SWG 5D-2 | Additional Studies Requested by the ITU | 1.13 | D. Garot | France | J. Garcia |
| | | SWG 5D-3 | Res 538 & S5.515 | 1.13 | J. Leary | Japan | E. Davison |
| | | Informal | PFD Limits S21/S22 | 1.13 | | | J. Garcia |
| | AH/1 | | Resolutions for MSS Spectrum | 1.9 | D. Greensmith | United Kingdom | R. Reaser W. Wamback D. Franc |
| COM 6 | | | Editorial | N/A | L. Bourgeat | France | D. Messer |
| GT/Plen 1 | | Agenda Items 1.19, 1.19bis, 1.20 and 1.21 | | | R. Zeitoun | Canada | K. Baum |
| | | PL-1/AH-1 | All technical aspects related to BSS re-planning including methodology, criteria and compatibility issues | 1.19 | C. Dosch | Germany | K. Baum |
| | | PL-1/AH-1A | Compatibility with other services | 1.19 | M. Panduro | Spain | K. Baum |
| | | PL-1/1 | Regulatory/procedural aspects (agenda items 1.19, 1.19bis, 1.20) | 1.20 | J. Chartier | France | K. Baum |
| | | PL-1/DG-1 | Resolutions | 1.19, 1.19bis, 1.20 and 1.21 | M. Delahoy | Australia | E. Reinhart |
| GT/Plen 2 | | Agenda Items 5, 6, 7.1 and 7.2 | | | E. George | Germany | F. Williams |
| | | GT PL-2/A | Problems with 5 GHz (hiperlans) | 7.2 | | | D. Spalt L. Reed |

ANNEX H

RESOLUTION 800 (WRC-2000)

AGENDA FOR THE 2003 WORLD RADIOCOMMUNICATION CONFERENCE

The World Radiocommunication Conference (Istanbul, 2000),

considering

- a) that, in accordance with No. 118 of the Convention, the general scope of the agenda for a world radiocommunication conference should be established four to six years in advance and a final agenda shall be established by the Council two years before the conference;
- b) Article 13 of the Constitution relating to the competence and scheduling of world radiocommunication conferences and Article 7 of the Convention relating to their agendas;
- c) the relevant resolutions and recommendations of previous world administrative radio conferences (WARCs) and world radiocommunication conferences (WRCs),

recognizing

- a) that this conference has identified a number of urgent issues requiring further examination by WRC-03;
- b) that, in preparing this agenda, many items proposed by administrations could not be included and have had to be deferred to future conference agendas,

resolves

to recommend to the Council that a world radiocommunication conference be held in 2003 for a period of four weeks, with the following agenda:

- 1 on the basis of proposals from administrations and the Report of the Conference Preparatory Meeting, taking account of the results of WRC-2000, and with due regard to the requirements of existing and future services in the bands under consideration, to consider and take appropriate action with respect to the following items:
 - 1.1 requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, in accordance with Resolution **26 (Rev.WRC-97)**;
 - 1.2 to review and take action, as required, on No. **S5.134** and related Resolutions **517 (HFBC-87)** and **537 (WRC-97)** and Recommendations **515 (Rev.WRC-97)**, **517 (HFBC-87)**, **519 (WARC-92)** and Appendix **S11**, in the light of the studies and actions set out therein, having particular regard to the advancement of new modulation techniques, including digital techniques, capable of providing an optimum balance between sound quality, bandwidth and circuit reliability in the use of the HF bands allocated to the broadcasting service;

1.3 to consider identification of globally/regionally harmonized bands, to the extent practicable, for the implementation of future advanced solutions to meet the needs of public protection agencies, including those dealing with emergency situations and disaster relief, and to make regulatory provisions, as necessary, taking into account Resolution [GT PLEN-2/5] (**WRC-2000**);

1.4 to consider the results of studies related to Resolution **114 (WRC-95)**, dealing with the use of the band 5 091-5 150 MHz by the fixed-satellite service (Earth-to-space) (limited to non-GSO MSS feeder links), and review the allocations to the aeronautical radionavigation service and the fixed-satellite service in the band 5 091-5 150 MHz;

1.5 to consider, in accordance with Resolution [GT PLEN-2/1] (**WRC-2000**), regulatory provisions and spectrum requirements for new and additional allocations to the mobile, fixed, Earth exploration-satellite and space research services, and to review the status of the radiolocation service in the frequency range 5 150-5 725 MHz, with a view to upgrading it, taking into account the results of ITU-R studies;

1.6 to consider regulatory measures to protect feeder links (Earth-to-space) for the mobile-satellite service which operate in the band 5 150-5 250 MHz, taking into account the latest ITU-R Recommendations (for example, Recommendations ITU-R S.1426, ITU-R S.1427 and ITU-R M.1454);

1.7 to consider issues concerning the amateur and amateur-satellite services:

1.7.1 possible revision of Article **S25**;

1.7.2 review of the provisions of Article **S19** concerning the formation of call signs in the amateur services in order to provide flexibility for administrations;

1.7.3 review of the terms and definitions of Article **S1** to the extent required as a consequence of changes made in Article **S25**;

1.8 to consider issues related to unwanted emissions:

1.8.1 consideration of the results of studies regarding the boundary between spurious and out-of-band emissions, with a view to including the boundary in Appendix **S3**;

1.8.2 consideration of the results of studies, and proposal of any regulatory measures regarding the protection of passive services from unwanted emissions, in particular from space service transmissions, in response to *recommends* 5 and 6 of Recommendation **66 (Rev.WRC-2000)**;

1.9 to consider Appendix **S13** and Resolution **331 (Rev.WRC-97)** with a view to their deletion and, if appropriate, to consider related changes to Chapter SVII and other provisions of the Radio Regulations, as necessary, taking into account the continued transition to and introduction of the Global Maritime Distress and Safety System (GMDSS);

1.10 to consider the results of studies, and take necessary actions, relating to:

1.10.1 exhaustion of the maritime mobile service identity numbering resource (Resolution **344 (WRC-97)**);

1.10.2 shore-to-ship distress communication priorities (Resolution **348 (WRC-97)**);

- 1.11 to consider possible extension of the allocation to the mobile-satellite service (Earth-to-space) on a secondary basis in the band 14-14.5 GHz to permit operation of the aeronautical mobile-satellite service as stipulated in Resolution **216 (Rev.WRC-2000)**;
- 1.12 to consider allocations and regulatory issues related to the space science services in accordance with Resolution **723 (Rev.WRC-2000)** and to review all Earth exploration-satellite service and space research service allocations between 35 and 38 GHz, taking into account Resolution **[COM5/1] (WRC-2000)**;
- 1.13 to consider regulatory provisions and possible identification of existing frequency allocations for services which may be used by high altitude platform stations, taking into account No. **S5.5RRR** and the results of the ITU-R studies conducted in accordance with Resolutions **122 (Rev.WRC-2000)** and **[COM5/14] (WRC-2000)**;
- 1.14 to consider measures to address harmful interference in the bands allocated to the maritime mobile and aeronautical mobile (R) services, taking into account Resolutions **207 (Rev.WRC-2000)** and **[COM5/12] (WRC-2000)**, and to review the frequency and channel arrangements in the maritime MF and HF bands concerning the use of new digital technology, also taking into account Resolution **347 (WRC-97)**;
- 1.15 to review the results of studies concerning the radionavigation-satellite service in accordance with Resolutions **[COM5/16] (WRC-2000)**, **[COM5/19] (WRC-2000)** and **[COM5/20] (WRC-2000)**;
- 1.16 to consider allocations on a worldwide basis for feeder links in bands around 1.4 GHz to the non-GSO MSS with service links operating below 1 GHz, taking into account the results of ITU-R studies conducted in response to Resolution **127 (Rev.WRC-2000)**, provided that due recognition is given to the passive services, taking into account No. **S5.340**;
- 1.17 to consider upgrading the allocation to the radiolocation service in the frequency range 2 900-3 100 MHz to primary;
- 1.18 to consider a primary allocation to the fixed service in the band 17.3-17.7 GHz for Region 1, taking into account the primary allocations to various services in all three Regions;
- 1.19 to consider regulatory provisions to avoid misapplication of the non-GSO FSS single-entry limits in Article **S22** based on the results of ITU-R studies carried out in accordance with Resolution **[COM5/2] (WRC-2000)**;
- 1.20 to consider additional allocations on a worldwide basis for the non-GSO MSS with service links operating below 1 GHz, in accordance with Resolution **214 (Rev.WRC-2000)**;
- 1.21 to consider progress of the ITU-R studies concerning the technical and regulatory requirements of terrestrial wireless interactive multimedia applications, in accordance with Resolution **[GT PLEN-2/2] (WRC-2000)**, with a view to facilitating global harmonization;
- 1.22 to consider progress of ITU-R studies concerning future development of IMT-2000 and systems beyond IMT-2000, in accordance with Resolution **[GT PLEN-2/3] (WRC-2000)**;
- 1.23 to consider realignment of the allocations to the amateur, amateur-satellite and broadcasting services around 7 MHz on a worldwide basis, taking into account Recommendation **718 (WARC-92)**;

- 1.24 to review the usage of the band 13.75-14 GHz, in accordance with Resolution **[COM5/10] (WRC-2000)**, with a view to addressing sharing conditions;
- 1.25 to consider, with a view to global harmonization to the greatest extent possible, having due regard to not constraining the development of other services, and in particular of the fixed service and the broadcasting-satellite service, regulatory provisions and possible identification of spectrum for high-density systems in the fixed-satellite service above 17.3 GHz, focusing particularly on frequency bands above 19.7 GHz;
- 1.26 to consider the provisions under which earth stations located on board vessels could operate in fixed-satellite service networks, taking into account the ITU-R studies in response to Resolution **[COM4/3] (WRC-2000)**;
- 1.27 to review, in accordance with Resolutions **[GT PLEN-1/1] (WRC-2000)** and **[GT PLEN-1/3 (WRC-2000)]**, the ITU-R studies requested in those resolutions, and modify, as appropriate, the relevant regulatory procedures and associated sharing criteria contained in Appendices **S30** and **S30A** and in the associated provisions;
- 1.28 to permit the use of the band 108-117.975 MHz for the transmission of radionavigation satellite differential correction signals by ICAO standard ground-based systems;
- 1.29 to consider the results of studies related to Resolutions **[COM5/3] (WRC-2000)** and **[COM5/23] (WRC-2000)** dealing with sharing between non-GSO and GSO systems;
- 1.30 to consider possible changes to the procedures for the advance publication, coordination and notification of satellite networks in response to Resolution **86** (Minneapolis, 1998);
- 1.31 to consider the additional allocations to the mobile-satellite service in the 1-3 GHz band, in accordance with Resolutions **[COM5/29] (WRC-2000)** and **[COM5/30] (WRC-2000)**;
- 1.32 to consider technical and regulatory provisions concerning the band 37.5-43.5 GHz, in accordance with Resolutions **128 (Rev.WRC-2000)** and **[COM5/28] (WRC-2000)**;
- 1.33 to review and revise technical, operational and regulatory provisions, including provisional limits in relation to the operation of high altitude platform stations within IMT-2000 in the bands referred to in No. **S5.BBB**, in response to Resolution **[COM5/13] (WRC-2000)**;
- 1.34 to review the results of studies in response to Resolution **[COM4/6] (WRC-2000)** concerning threshold values for non-GSO BSS (sound) in the band 2 630-2 655 MHz, and to take actions as required;
- 1.35 to consider the report of the Director of the Radiocommunication Bureau on the results of the analysis in accordance with Resolution **53 (Rev.WRC-2000)** and take appropriate action;
- 2 to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution **28 (Rev.WRC-2000)**, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the Annex to Resolution **27 (Rev.WRC-2000)**;
- 3 to consider such consequential changes and amendments to the Radio Regulations as may be necessitated by the decisions of the conference;

4 in accordance with Resolution **95 (Rev.WRC-2000)**, to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation;

5 to review, and take appropriate action on, the report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention;

6 to identify those items requiring urgent action by the radiocommunication study groups in preparation for the next world radiocommunication conference;

7 in accordance with Article 7 of the Convention:

7.1 to consider and approve the Report of the Director of the Radiocommunication Bureau on the activities of the Radiocommunication Sector since WRC-2000, including on any difficulties or inconsistencies encountered in the application of the Radio Regulations, and action in response to Resolution **80 (Rev.WRC-2000)**;

7.2 to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution [GT PLEN-2/6] (**WRC-2000**),

further resolves

8 to recommend to the Council that additional budgetary and conference resources be provided so that the following items can be included in this agenda for WRC-03:

8.1 to examine the adequacy of the frequency allocations for HF broadcasting from about 4 MHz to 10 MHz, taking into account the seasonal planning procedures adopted by WRC-97;

8.2 to consider the regulatory and technical provisions for satellite networks using highly elliptical orbits;

8.3 to consider provision of up to 6 MHz of frequency spectrum to the Earth exploration-satellite service (active) in the frequency band 420-470 MHz, in accordance with Resolution **727 (Rev.WRC-2000)**;

8.4 to examine the spectrum requirements in the fixed-satellite service bands below 17 GHz for telemetry, tracking and telecommand of fixed-satellite service networks operating with service links in the frequency bands above 17 GHz;

9 to activate the Special Committee,

invites the Council

to finalize the agenda and arrange for the convening of WRC-03, and to initiate as soon as possible the necessary consultation with Member States,

instructs the Director of the Radiocommunication Bureau

to make the necessary arrangements to convene meetings of the Conference Preparatory Meeting and to prepare a report to WRC-03,

instructs the Secretary-General

to communicate this resolution to international and regional organizations concerned.

ANNEX I

RESOLUTION 801 (WRC-2000)

PRELIMINARY AGENDA FOR THE 2005/2006 WORLD RADIOCOMMUNICATION CONFERENCE

The World Radiocommunication Conference (Istanbul, 2000),

considering

- a) that, in accordance with No. 118 of the ITU Convention, the general scope of the agenda for WRC-05/06 should be established four to six years in advance;
- b) Article 13 of the Constitution relating to the competence and scheduling of world radiocommunication conferences and Article 7 of the ITU Convention relating to their agendas;
- c) the relevant resolutions and recommendations of previous world administrative radio conferences (WARCs) and world radiocommunication conferences (WRCs),

resolves to give the view

that the following items should be included in the preliminary agenda for WRC-05/06:

- 1 to take appropriate action in respect of those urgent issues that were specifically requested by WRC-03;
- 2 on the basis of proposals from administrations and the Report of the Conference Preparatory Meeting, and taking account of the results of WRC-03, to consider and take appropriate action in respect of the following items:
 - 2.1 requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution **26 (Rev.WRC-97)**;
 - 2.2 to review the operational procedures of the Global Maritime Distress and Safety System (GMDSS), taking into account the experience since its introduction and the needs of all classes of shipping;
 - 2.3 to review studies and consider allocations in the frequency bands above 275 GHz;
 - 2.4 to consider a resolution specifying the technical bases for the global operation of stations in the land mobile and land mobile-satellite services between 30 MHz and 6 GHz;
 - 2.5 to review the allocations to services in the HF bands, taking account of the impact of new modulation and adaptive control techniques and any recommendations by WRC-03 on the adequacy of the frequency allocations for HF broadcasting and the fixed and mobile services (excluding those bands whose allotment plans are in Appendices 25, 26 and 27), from about 4 MHz to 10 MHz;

- 2.6 to consider possible changes in response to Resolution **86** (Minneapolis, 1998): “Coordination and notification procedures for satellite networks”;
- 2.7 to consider potential for sharing at around 4 300 MHz between radio altimeters and space-based passive earth sensors;
- 2.8 on the basis of the results of studies, to consider allocations, if appropriate, to non-GSO MSS with service links below 1 GHz in the band 470-862 MHz, in accordance with Resolution **728 (Rev.WRC-2000)**;
- 2.9 to consider the use of frequency adaptive systems in the MF/HF bands, in accordance with Resolution **729 (WRC-97)**;
- 2.10 to consider allocation of the frequency band 14.5-14.8 GHz to the fixed-satellite service (Earth-to-space) in Region 3 (expansion of the fixed-satellite service to include links other than feeder links of the broadcasting-satellite service);
- 2.11 to review the possibility for additional allocations for the fixed service in the bands above 3 GHz;
- 2.12 to consider spectrum requirements for wideband aeronautical telemetry in the band between 3 GHz and 30 GHz;
- 2.13 to review No. **S5.332** in respect of the frequency band 1 215-1 260 MHz and No. **S5.333** in respect of the frequency band 1 260-1 300 MHz, concerning the Earth exploration-satellite (active) service and other services;
- 2.14 to take into account ITU-R studies in accordance with Resolution **342 (WRC-2000)**, and to consider the use of new digital technology for the maritime mobile service in the band 156-174 MHz, and consequential revision of Appendix **S18**;
- 2.15 to review, with a view to identifying necessary spectrum for global harmonization, spectrum and regulatory issues related to terrestrial wireless interactive multimedia applications in accordance with Resolution **[GT PLEN-2/2] (WRC-2000)**;
- 2.16 to review the requirements for the future development of IMT-2000 and systems beyond IMT-2000, taking into account Resolution **[GT PLEN-2/3] (WRC-2000)**;
- 3 to consider the results of the studies related to the following, with a view to considering them for inclusion in the agendas of future conferences:
- 3.1 to consider results of ITU-R studies on the feasibility of sharing in the band 2 700-2 900 MHz between the aeronautical radionavigation service, meteorological radars and the mobile service, and to take appropriate action on this subject;
- 3.2 to consider results of ITU-R studies in accordance with Resolution **[COM5/22] (WRC-2000)** to ensure spectrum availability and protection for the aeronautical mobile-satellite (R) service and the Global Maritime Distress and Safety System (GMDSS), and to take appropriate action on this subject, while retaining the generic allocation for the mobile-satellite service;
- 4 to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution **28 (Rev.WRC-2000)**, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in the annex to Resolution **27 (Rev.WRC-2000)**;

5 to consider such consequential changes and amendments to the Radio
Regulations as may be necessitated by the decisions of the conference;
6 in accordance with Resolution **95 (Rev.WRC-2000)**, to review the resolutions
and recommendations of previous conferences with a view to their possible revision,
replacement or abrogation;
7 to review, and take appropriate action on, the report from the
radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the
Convention;
8 to identify those items requiring urgent action by the radiocommunication
study groups;
9 in accordance with Article 7 of the Convention:
9.1 to consider and approve the Report of the Director of the
Radiocommunication Bureau on the activities of the Radiocommunication Sector since WRC-
03;
9.2 to recommend to the Council items for inclusion in the agenda for the
following world radiocommunication conference,

invites the Council
to consider the views given in this resolution,

instructs the Director of the Radiocommunication Bureau
to make the necessary arrangements to convene meetings of the Conference Preparatory Meeting
and to prepare a report to WRC-05/06,

instructs the Secretary-General
to communicate this resolution to international and regional organizations concerned.